DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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RAYNOLDS & NOURSE, PROPRIETORS. OFFICE....QUINCY HALL. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, } ASSOCIATE EDITORS.

CALENDAR FOR JUNE.

LO! The winter is past; the rain is over and gone; the flowers appear on the earth, the time of the singing of birds is come, and the voice of the turtle is heard in our land.—SONG OF SOLOMON.

Thus sang one, said to be the wisest among men. The changes of the seasons, the times when the birds came and began to sing, and the voice of the turtle was first heard, when the beautiful flowers appeared, and all the new and varied aspects of nature presented themselves, were not unnoticed or disregarded by him, filled with wisdom as he was beyond the usual capacity of men. That wisdom rather gave him new powers to appreciate their wonderful structure, usefulness and beauty; and in the fulness of his heart he gave utterance to the pleasant song which we have quoted above.

SOLOMON probably looked at these revelations of nature *individually*, as well as collectively, as we believe any wise man must. Most of us live altogether too fast.

Spring comes, and all the elements of fertility are active; frost and snow disappear, while strong winds sweep off the redundant moisture. The more vertical solar rays warm the earth, set the sap in motion and cause the flowers to appear, studding the shrubs and trees as with so many gems; they deck the landscape with their graceful forms and brilliant colors, while no nook is so secluded, or hill-side so poor as not to produce, with a seeming extravagance, these beautiful and gentle denizens of the field and forest.

We look and admire, perhaps exclaim, "how past all human skill they are," and forget them. We have looked on them as a whole, and retain no distinct recollection of any. So, we think, did not SOLOMON. Now look at that bed of tulips,

> ——"where beauty plays
> Her idle freaks,"

or that branch from the gnarled oak, with its tiny apples and tasseled flowers, or the blade of corn or grass,—look at these with a little study and thought, and you seem to arrest the march of time, by fixing an enduring impression of the varied attractions of this season on the mind. The mind has something *individual* and *positive* to go back to, whose associations will introduce again the whole panorama of this delightful period.

To "know a little of everything" is well; but to know a *good deal* of some things will afford the most substantial enjoyments. To know more of farming will be to know more of these things of which we are speaking; and to know these we must give them attention, thought and investigation, *separately*. Pause, then, under this tree, examine its bark, the form of its branches, its leaves and flowers, and let this examination be the subject of your reflections for the next hour. And so of other things. Let there be a daily examination of some of the stones, insects, plants or flowers about you; it is all "in the line of your duty," as the military men say, and *will increase your power over the crops* in your future operations, as well as *multiply the dimes in your pocket!*

Some may say that all this *is not practical*,—and has no bearing on their calling. So said the bystanders to NEWTON, and FRANKLIN, and FULTON. Who could see a passage to Europe in eleven days, in the wheels and sheet iron pots of Fulton! or the lightning drawn from the clouds and quietly deposited in the earth, inert and harmless, through the bobs and strings and iron keys of that crotchety fellow, BEN FRANKLIN!

It *is practical*. A better knowledge of the wants of plants leads to a better cultivation of them, and a greater profit from the labor expended. We shall yet find something in farming, beside the expenditure of muscle on the clods and dung-heaps; and that false notion which prevails with so many; and cries in the ears of the farmer,—toil, toil, eighteen hours per day are demanded,—must ere long give place to more enlightened views and practices.

But connected with this practical part, there

are other matters no less important, and to a few of which we will briefly advert.

JUNE is one of the fervid months; hot suns and drying winds usually prevail, and unless there are frequent showers, plants will begin to fail where careful cultivation is neglected. Much may be done to prevent this, by a frequent stirring of the soil, by *mulching* the young trees, shrubs, tomatoes and other plants, and an occasional watering of those considered the most valuable. When watering is resorted to, it should be done liberally, wetting the ground thoroughly about the roots of the plant, and then omit for a few days. A frequent dribbling of water only wets a little below the surface which soon becomes caked, and prevents the admission of air and atmospheric influences.

Those who are cultivating dwarf pears, or any young trees, will find much benefit from *mulching*; it prevents excessive evaporation, and weeds from springing up; keeps the ground porous, and yet, if properly done, will admit heat sufficient for the vigorous growth of the plant. Coarse hay, straw, leaves, saw-dust, tan, fine brush, such as the tops of white birches, or fine chips from the door-yard, will answer a good purpose. It should be laid loosely, and not so thick as to prevent the rays of the sun from reaching the ground.

THE GARDEN will require *daily* care. Weeds will grow while you sleep, or take your "nooning." Give the garden a half hour's attention just after milking every morning. Fill the waste corners with cabbages for the cows; a few hundred heads may be raised in this way and the labor scarcely be felt.

MILLET.— This is a fine crop for haying for winter fodder. Some farmers of experience say it is as valuable as an equal amount of English hay.— Sow about the 10th of June, *eight quarts* of seed to the acre. See recent articles in the *Farmer* on this subject.

HOEING.—If the season is a dry one, cultivate a flat surface; but if rainy, as was the summer of 1850, perhaps slightly hilling the corn and potato crop may prove advantageous. The clear, hot days are the days for hoeing; leave the weeds on the surface a few hours at such a time, and they will trouble you no longer.

HAYING.—If some particular pieces of grass lodge and require to be cut early, do not allow this beginning to call off your attention entirely from *the hoeing*. Great losses are annually sustained among us by this practice. No weeds should be allowed to grow among your hoed crops; and the ground ought to be stirred once in 10 or 12 days, *if there are no weeds!* This was JETHRO TULL'S theory, and he proved its efficacy by the test of practice.

YOUNG TREES.—Trees coming into blossom for the first time, should not be allowed to perfect much fruit. If it grow on the ends of the limbs it bends them out of shapes and diverts the sap from making wood into the fruit, while the growth of the tree is what is desired.

THE CURCULIO.—Sift lime-dust over the plum and apricot trees when the dew is on them, and this little plague will not sting the fruit. Two or three sprinklings, at intervals of several days, will probably be sufficient. Try the same remedy on some of your apple trees.

STRIPED BUGS.—Many persons say that a box put round the plants will positively prevent the attack of these bugs. Three shingles 5 or 6 inches high, supportedby the earth or sticks,answer every purpose. Mr. T. O. PAINE, in the *Eastern Mail*, says he has practised this plan with success for 12 years.

For the New England Farmer.

PASSING MATTERS.

BY A. G. COMINGS.

IMAGINATION IN COWS.—Being at Milford, N. H., a short time since, I learned from Mr. P. M. Rossiter, of that place, a singular and striking case illustrative of the effect of imagination in cows. Sometime during the winter Mr. Rossiter lost a cow, and the following circumstances attended the case. The cow died in the evening, and was skinned by candle-light, that is, by lamp-light, in a part of his barn, at some distance from his cow stable. The position of the cows was such that when the body of the dead animal lay upon the back the legs would be in full view of the cow in the stable. In such a position they were skinned, and the matter disposed of, on that evening.

In the early part of March, if my memory is correct, a very fine Devon cow gave a calf, which, was most singularly marked in the legs, they being in a great measure destitute of hair or even skin upon the lower portion of the legs, and the hind legs were without feet, that is, without hoofs.

The case is one which should be attributed, doubtless, to the effect of imagination in the cow. It is a strong case, as I had the statement, which I presume was correct. If imagination produced such an effect in the days of Jacob, in the color of cattle, what other effects may follow from the same cause we cannot determine. It appears to me to be indicative of an unusual degree of intelligence, as it is common for people to express it, in certain animals; and certainly some of Mr. Rossiter's cattle look as though they did really know something, if they cannot talk.

MILFORD VILLAGE, &c.—It is decided that the Hillsborough County Agricultural and Mechanical Society will hold its next annual fair at Milford, on the 28th and 29th of September next. We expect to be favored with an Address on the occasion from Hon. John W. Proctor, of Danvers, Mass. The first fair of the Society was at Milford in the fall of 1850. So the next will be our fourth annual fair.

At that place a large number of Eagle plows are manufactured, from whence they go to California, Australia, Oregon, the Sandwich Islands, &c., as well as for a large sale nearer home. The

agents, Messrs. Putman and Chase, are doing a great business in that line. With the immense business of other establishments turning out thousands of improved implements yearly, perhaps I might say, *daily*, it shows the throbbing pulse of an advancing people for improvement.

Experiment on a Tree.—Late in April, in the spring of 1852, two men paid a visit by night to an orchard which is subject to my care, and gratified their propensities by cutting down, &c., a large number of fruit trees. I discovered what had been done very early the next morning, and upon one tree, somewhat or twelve inches through, which had been completely girdled for the distance of about two feet, I put a light, single covering of white cotton cloth, without any other protection. The tree lived through the season and bore fruit. The woody growth of the tree was very good, the twigs having extended from six inches to two feet, in the formation of a new growth. This spring, the tree puts out fair and bright, promising fruit, and yet there is not anywhere that I can see any connection of the bark, nor of the newly formed wood of last year. No new bark has been formed over the girdled part of the tree, nor is there any new formation of wood over that. The new layer of wood above and below the girdled part is of about the same thickness, and is about one-fourth of an inch in thickness. On some spots where the bark was not taken entirely off, but where it was taken off all around, there a new formation of wood is seen, but less in thickness than it is above or below the girdle.

I chose a clear white cloth in preference to anything else, because the white would reflect the rays of the sun, and therefore keep the surface from being much heated. I would not bind it on with any bandages, or strings, lest they should bind on the peeled surface too tightly; and therefore put the cloth around and fastened it with some small nails. The experiment is giving me much instruction as to the growth, maturity and life of trees. It teaches, I think, the following truths :—

1. That the life of a tree does not absolutely depend, for the time being, upon its having a covering of bark.

2. That the sap circulates in other ways than directly lengthwise of the wood.

3. That trees, which would otherwise certainly die, may be preserved in this simple manner, so as to give ample time to take other measures to preserve them completely.

How long the above named tree will live and grow remains to be seen. A. G. C.

Mason, N. H.

Cob Meal.—Mr. Thomas Motley, Jr., of West Roxbury, says, in the *Boston Cultivator* :—I have fed out over five hundred bushels this winter to horses, working oxen, milch cows and pigs—in fact, I have used no other grain. My horses have never been in better condition than at present, and have worked hard all winter; they have been fed regularly upon the following feed : 12 lbs. cut hay and 8 quarts cob meal to each horse per day. Horses, oxen and cows are all in good health and condition, and I should be happy to see any persons interested in agricultural matters, and let them judge for themselves.

For the New England Farmer.

SKETCHES OF TRAVEL.

Friend Brown :—I am about taking a trip to Lancaster, Pa., and if any of your readers will run the risk of getting their heads broken by collision, or open draws, or from other infernal machinery, such as our railway managers know how to use, and seem determined to use, for the destruction of what few people remain, let them jump on and go along with me.

Well, here we are in the depot of the Baltimore and Susquehanna Railroad, leading to Harrisburgh, Pittsburgh and Cincinnati. Fare through *only* fifteen dollars ! Think of that, ye "solid men of Boston," who want to go to the West by the safest and cheapest route, and see all the world and the rest of mankind.

The steam is up and we are off through the suburbs; no, I mistake. * Baltimore has no suburbs. Out of the city and you are in the country, and a ratherish poor country at that. Those suburban villas and princely residences which cluster about the purlieus of some cities, are not found, but to a very limited extent, about Baltimore. It is much like the approach to Washington, where you grope your way for a long distance through a goose-pasture, till of a sudden you come upon a huge Dutch barn, with a cupola on it, which proves to be nothing less than Uncle Sam's capitol.

So, ho! what now? bridge gone, burnt down yesterday. Wonder they didn't run us all into the creek. After two hours detention, we are under way again. Here's Texas, not the "valley of rascals," though a *hard* looking place. It is built wholly *of* limestone and *upon* limestone. Houses, barns, fences, gardens and roads, all of the same material. The sole occupation of the people seems to be to quarry, burn and haul limestone. And, judging from the color of their dresses, one would suppose them also made of limestone. They have no visible means of support but upon limestone; and I know not but they substitute it for flour. Certain I am, that they breathe it, for they can't do "nothing else" while they remain there.

From these quarries comes a large portion of the lime used in Baltimore. It is sold at the kilns for three fips* a bushel. Look first on this, and then on that. This is the dividing line between Maryland and Pennsylvania. Geographers teach that mathematical and political divisions are merely imaginary. But in this case the dividing line is *scratched* upon the surface of the earth, so indelibly, that he who rides in the cars may see and perceive.

We Marylanders are loth to admit that slave labor curses the soil as well as the people. But facts are stubborn realities; and any one who passes from Baltimore to York, his eyes open, need not be told where the dividing line is.

Here is York, the shire town of York County, a right smart place,—population good,—well built, and a place of considerable business. It contains a poor-farm and an almshouse, where all the poor

* A "fip," is our four-pence, half-penny.

of the county are provided for. This plan has some advantages over that of town provision, adopted throughout New England. It equalizes the burdens, and probably lessons the aggregate expense.

We have the Harrisburgh road here, and turning eastward, go on to Wrightsville. This is a lumbering village, on the west bank of the Susquehanna, where the tide water and Susquehanna canal crosses the river. There are some large lumber mills here, owned by lumber merchants in Baltimore.

Wrightsville is connected with Columbia, by a bridge across the Susquehanna a mile and a quarter in length. This bridge is an object of some curiosity. It has two railway tracks, two canal tow paths and accommodations for public travel. It is said to have cost $230,000.

Here we are in Columbia! Hail Columbia, happy land! what a passion we Yankees have for attaching big names to little things. Well, the names may haul them up and make them sound large, if they are not really so. Columbia is a great lumber land. Most of the lumber, cut upon the several branches of the Susquehanna, is hauled up at this place. Iron is abundant in the immediate vicinity on both sides of the river.

Several furnaces are in full blast. The population is about 6000, and rapidly increasing. We observe here, what is common in this State, and I believe, through the South. All marketing is done at stated times and in the market place. On certain fixed days, the buyers and the sellers congregate early in the morning, in the market-place, the one to be rid of cash, and the other of what they deem equivalents. I think this far better, for all concerned, than to have marketing dribbling along through the whole week.

From Columbia to the Gap so called, on the borders of Chester county, we pass through the most beautiful agricultural region I have ever seen. I have travelled in fourteen of the States and upper and lower Canada, but have seen nothing that will compare with Lancaster, for farming purposes. The land is gently rolling. No hills, no marshes. Most of the land cleared,—laid off with great regularity,—enclosed with high and substantial fences and under the highest state of cultivation. You might go over thousands of acres and not find a briar or bush, or useless tree. Every foot of ground seems to be made productive; such an exhibit of wheat, rye, oats and clover, I have never seen. Should a landscape painter color his picture so highly, as many of these fields appear to me, I should have accused him of extravagance A New Englander, after passing through this region, will understand the meaning of the language so often applied to the land of his nativity, "rock-bound and barren."

Three reasons may be given for the fertility of these lands. The soil is *naturally* good. Where excavations have been made for the railroad, the grass grows up in few years and covers the slope down to the track. Indeed, the very track is completely turfed and produces grass abundantly. A gentleman who acted as engineer on the first road constructed through the county, remarked to me that the earth, taken from 15 feet below the surface, exposed for a short time to sun and rain, would support vegetation as well as the surface soil.

2. Lime is abundant and is freely applied. Almost every farm has a limestone quarry, and the making and applying of lime constitutes an essential part of the business of every good farmer.—Lime may be had at any of the kilns, for nine cents a bushel, and often for seven. This is spread upon the surface, at the rate of about 50 bushels per acre and plowed in. Once thoroughly limed, the land needs nothing more for many years, unless it may be a crop of clover.

3. The farmers here understand their avocation. The German farmers of Pennsylvania "can't be beat." They are intelligent, in their way, patient, industrious and economical. Their barns are models for imitation. The basement or cellar, of stone or brick, and is devoted to stabling and shelter. The second story, where the hay and grain are deposited, is approached by a causeway. Many are built entirely of stone; others have stone basements and brick above. The houses are generally large and commodious, and everything about indicates comfort and independence.

But these farmers have their peculiarities.—Among these, the Yankee would notice their teams. The Yankee wishing to remove a quantity of wood *draws* it. The Dutchman *hauls* it.—The farmer uses one horse or at most, two, or a pair of oxen, with a wagon or cart adapted to his team. The latter, hitches six horses, each as large as a small elephant and so fat as to be seemingly uncomfortable to a nondescript vehicle, resembling nothing of which we read in history, either sacred or profane, unless it be Noah's Ark on wheels,—the tongue projecting from 4 to 6 feet in advance of the heads of the wheel horses, and so low as almost to strike the ground, each horse having so much leather about him, as to render a fly screen unnecessary. He then mounts the near wheel horse and with one rein in his left hand and a short whip in his right, he cries out yea—aup.

Another peculiarity is the plow. The Dutchmen in plowing are all Benjaminites,—they turn the furrow to the left. The only reason I could get for this foible, is that they guide their horses with one rein; this is attached to the near horse, and if he is permitted to walk in the furrow, he needs less guiding from the plowman. A plow in common use there, is made of iron entire.

The price of land in this county answers to its quality; from one hundred to one hundred and fifty dollars per acre, taking a whole farm, the buildings included. I was shown a tract of 80 acres, without buildings, which was sold recently for $140 per acre. At this rate, a farm of one hundred acres would bring the clever little sum of $14,000. I was told by several farmers that, notwithstanding the good quality of their lands, farmers did not generally get more than three per cent. on the estimated value of their farms.

Labor is very high and difficult to obtain. The farmers say that the Legislature, in their zeal to protect and aid the poor, in other words, to be very Democratic, have legislated poor laboring men all out of the State. It is generally admitted, I believe, that the Pennsylvania Legislature, have for some years past been legislating for every body else, rather than for their own people. But I am spinning a long yarn, or plowing a long furrow, I should say, and against this, you cautioned your correspondents last week. But I suppose that was intended for prosy writers. Now I

am not prosy, not I. Did you ever know a writer prosy in his own estimation! All men think all men *sinners* but themselves.

Allow me to introduce one individual, to substantiate what I have said of the intelligence and shrewdness of the Pennsylvania farmers, and then I will break up. Col. Ringwalt, living near the R. R. Depot, at Downington, Chester Co., has a farm of one hundred and twenty-five acres, 25 in wood. Of that which is cleared, the largest portion is a pasture. He gathered last season, 75 tons of good hay. He might have gathered 150 tons, but he pastured a portion of his mow lots. He keeps a public house and entertains many drovers with herds of cattle and flocks of sheep. He harvested 1000 bushels of sound corn, getting from 60 to 90 bushels to the acre,—350 of wheat, and oats, and other small grains and roots in proportion.

He understands and practices thorough draining successfully. He showed me a tract of land which he purchased four years ago, for $50 per acre. It is now worth, he says, $100. But, he added, I will never sell it. When he purchased, the land was so wet, though upon a side-hill, as to be wholly unfit for tillage. It is now covered with wheat, rye and clover, better than any I saw elsewhere in the county.

He has thoroughly drained it, sinking his ditches, in some instances, eleven feet, so as in all cases, to arrest the water at the fountain. He fills all his drains with stones, arranging them at the bottom, so as to form a sluice for the water. The top he covers with straw, weeds or shavings, and that with earth. He allows no stones to remain upon the surface of his fields, or below it, within reach of his plow. He is not afraid to disturb the yellow dirt, but plows deep and subsoils. His rotation of crop is peculiar. He plants corn two seasons in succession,—then takes off two crops of wheat, then seeds to grass and mows from three to five. When he turns in turf, he plows but five or six inches. The second season he plows much deeper. The first crop of corn he depends mainly upon lime, spreading about fifty bushels to the acre. The second, he applies compost and barn-yard manure. After the second corn crop, he sows wheat and clover. In the autumn, after taking off the wheat, he sows plaster and turns in the clover and stubble and sows wheat and clover the second time. He thinks he gets more corn and more wheat the second crop than the first, and that the land is more thoroughly subdued and pulverized and in a better condition for grass. He slacks all his lime in salt water and spreads it and plows under, while smoking hot. This he regards as very essential.

Another idea which may be worth the attention of your readers. The Colonel makes great use of oyster shells, but says they should not be burnt. Burning destroys the distinctive properties of the shell. A burnt shell differs not essentially from stone lime, except that it contains a small quantity of phosphorous. But unburnt, in addition to what it contains when burnt, there is found in it a large quantity of animal matter which is highly nutritive to plants. He dries them by exposure to the sun, then grinds them in a plaster mill and applies them as he does other mineral manures.—He is careful to save all the liquid manures of his barn-yard, and keeping the ground covered with sand, loam, muck, saw-dust and other absorbents. In answer to my inquiry how he made his apple trees grow so fast and look so clear and thrify, he replied, "Keep them limed and washed with soap suds."

Now, Mr. Farmer, have not I established my position! Yankee farmers are cute chaps, and can do most things as *well* as any body else. But they need to be cautioned now and then, lest they come to think that they are the people, and all wisdom touching the matter of tillage will die with them.

Yours, R. B. H.

PLOWMAN'S SONG.

BY THE "PEASANT BARD."

Sweet are the fields where the clover is springing,
And blithe is the carol that floats from the bough;
And soft vernal breezes a gladness are bringing
To cheer me as gaily I follow the plow.

Though hard be my toil, and dew-drops of labor
Make damp the brown locks that encircle my brow,
No envy I feel for my ease-loving neighbor,
For pride more is mine, as I follow the plow.

The lordling may boast of his titular story;
The vote seeking grandee obsequious bow;
What care I for all their nonsensical glory?—
A NOBLE OF NATURE, I follow the plow.

I muse upon those, while turning the furrow,
Who, called like Elisha, are glorified now;
Tho' hand delve in earth, yet the mind need not burrow,
But spring to the light, as I follow the plow!

Connecticut Valley Farmer.

For the New England Farmer.

STATE FARM AT WESTBOROUGH.

MR. BROWN:—As model farms and educated farmers are prominent topics of consideration at the present time, may there not be propriety in instituting the inquiry, as to the management of the State farm at Westborough!

If rightly informed, there is a farm of about two hundred acres, as well situated for cultivation and improvement as any other in the Commonwealth. There are several hundred boys, between the ages of twelve and twenty years, healthy, vigorous and able to work; in need of instruction, *how to work*. There are means of expenditure at command, to sustain any and all reasonable experiments. Why not put this farm under the care of a man, able and competent to conduct such experiments! Would it not be for the benefit of the boys to be thus employed! Can they not be made to contribute something towards their own support!

It is stated by Dr. Bell, of the McLean Asylum, that the *thirty acres* of land connected with that institution yielded, the last year, a clear profit of $1400—or more than $46 per acre. Suppose fifty acres of the land on the farm at Westborough to be put under cultivation, with crops of vegetables at a profit of $40 per acre—would not this be an item worthy of consideration! If I do not mistake, there are those who would undertake the management of these lands, and guarantee this income, if they could have the use of classes of these boys, *six hours in the day, for this purpose.*

I hope that this matter will be looked into by some one competent to judge, and that the State farm will be found worthy of the State of Massachusetts.

May 18, 1853.

For the New England Farmer.

OLD APPLE TREES.

Reading the advice in the May Calendar to graft old trees, I thought of some trees in the neighborhood which had undergone that process, and wished the editor had appended to his advice a rap over the knuckles of such as follow it so badly.

Old trees of quite a decent and respectable figure in their native state, are sometimes converted into a mere collection of bare, crooked limbs, with brushes on the ends, perhaps improved in fruit but an eye-sore and a nuisance to all who love to see the fields adorned with fine trees as well as fruit. There is no need of the trees remaining in this awkward fix—the old branches, it is true, must be grafted near the ends, but a multitude of suckers always spring out lower down, and in trimming some of these should always be left in the right places to bring the tree into good shape. In two or three years they will be large enough to graft.

I once had half a dozen old trees headed down in order to graft entirely on the young sprouts. Two of them were sawed off near the parting of the limbs, leaving but little beside the bare trunk. On the others the limbs were left six to ten feet. The sprouts came out abundantly, and in due time were grafted and trimmed. It is now three years since they were grafted, and I find the trees which were headed down close have done much the best, and make the handsomest trees, the grafts growing most thrifty and less troubled with suckers from the old wood. BACHELOR.

May 18, 1853.

RULES FOR THE APPLICATION OF GUANO.

As guano is now extensively used as a fertilizer, and is constantly coming into the hands of those who have little or no experience in its application, everything calculated to aid the inexperienced will be acceptable. Indeed, inquiries are constant with regard to the quantity proper to be used per acre, and the best modes of application. In addition, therefore, to what we have already said in relation to it, we give below certain rules laid down by A. B. ALLEN, Esq., of New York, late editor of the *American Agriculturist*, a gentleman who is able to speak from actual experience on the application and effects of this important manure.

We have appended a few notes at the close of his rules, calling particular attention to some points of his circular, and have somewhat changed the order of his arrangement.

The rules are worthy of attentive consideration.

VALUE.

Guano is valuable for every kind of soil, except that which is already very rich, and to every kind of field and garden crop, grass, grain, vegetables, fruits and flowers. The reason it is so serviceable to all, arises from the fact of its containing every kind of food necessary for the growth of stem, flower, fruit, and seed. The eminent chemist, Dr. Jackson, of Massachusetts, says: "It comes nearer to a UNIVERSAL COMPOST than any other excremental manure."

Guano is particularly valuable for conservatories and gardens, inasmuch as it is quickly and easily applied; its fertilizing matter is in a very condensed form; and it contains no seeds of weeds to shoot up and check the growth of plants desired to be cultivated. Its fertilizing properties being in a very condensed form, the whole cost of enough for an acre and its application, is frequently less than the cost of *mere transportation* of city or barnyard manures to the ground where they are to be used. This is a very important consideration to the farmer, and especially the gardener.

PREPARATION.

Before using guano, pass it through a fine sieve, and all lumps remaining break up, and these pass through the sieve. Now take at least four times its bulk of sand, or dry sandy, or light loamy soil, and pass this through a coarser sieve, if you have one, and mix it in layers with the guano. Let this compost lie a few days—several weeks would be better—(*a.*) then toss it over and beat it up well together, and it will be fit for use. Some prefer mixing the guano with ten or twenty times its bulk of soil for a compost, and do not take the trouble of sifting it, but mix them together in alternate layers as well as it can be done with a shovel. Sifting, however, is best, as it is done so much more evenly. Sawdust is an excellent material with which to mix guano; but powdered charcoal is perhaps the best of all, as it fixes the ammonia, absorbs its unpleasant smell, and is in itself an excellent manure. When convenient to be obtained, plaster of Paris ought to be used in the compost, at the rate of 30 to 50 lbs. for every 100 lbs. of guano, as it also acts in the same way as charcoal. Lime and ashes must be avoided in composts, as they rapidly expel the ammonia, the most valuable part of the guano. Muck, if possible, should not be used for the compost, as it is too moist and tenacious to form a proper mixture. (*b.*) The same objection holds good against clay or any tenacious soil. Nevertheless, if there be no other soil at hand, muck or clay may be thoroughly dried and pulverized, and then used. Guano should not be mixed with barnyard manures, or indeed with any *moist* substance, as these cause it to undergo the very decomposition requisite to promote vegetation. The compost should be made under cover unless the weather be dry. Rain would be quite injurious to it, in hastening the decomposition of the Guano, and expelling its ammonia in the atmosphere.

QUANTITY REQUIRED PER ACRE.

This depends upon the kind of soil and its condition, and the kind of crop to be grown. From 250 to 400 lbs. of guano per acre is the safest quantity to apply. It acts quickest in a light sandy soil or loam, and is excellent to start crops on cold, moist land. It hastens the ripening of crops on all kinds of soil.

Take Particular Notice.—In speaking below about applying a tablespoonful, or any other quantity of guano, we mean that amount, without admixture; if mixed with four times its quantity of soil, then it would require *five* tablespoonfuls of this compost to be applied to get the single *one* of Guano, &c.

GRASS AND GRASS LANDS.

Spread broad-cast, from 250 to 400 lbs. per acre, mixed in a compost of earth of about four to

one. As soon as the snow is off the ground and the frost begins to come out, is the best time to apply it. Another application of from 150 to 200 lbs. may be given in midsummer, directly after the first mowing. *Care should be taken to do this just before a rain.* (*c.*) Grass lands may be top-dressed in the fall; but in that case, much of the Guano is likely to be washed off by the heavy rains and lost. We recommend applying it at the rate of 200 to 300 lbs. per acre, on land just seeded with grass. This should be done just previous to harrowing and rolling.

When sward land is to be plowed for a crop, it may be top-dressed with Guano previous to plowing, and then be turned under the sod. It will warm and hasten the decomposition of the sod, and afford food for the crop about the time the grain or fruit is filling, and thus add largely to the product.

WHEAT, RYE, BARLEY, OATS, &C.

On winter wheat and rye, spread broad-cast from 200 to 300 lbs. of Guano, per acre, just before the plant commences growing in the spring. If applied in the fall, unless on *very poor* soil, it is apt to give the crop too rank a growth before winter sets in. On spring wheat, rye, barley, oats, &c., spread the same quantity at the time of sowing, and harrow it in with the seed. If this be not convenient, it may be applied within a week or fortnight after the grain appears above ground. Caution must be used about applying too much on the small grain crops, otherwise it will be likely to promote too rank a growth and occasion smut.

INDIAN CORN.

For this crop, Guano may be spread broad-cast upon the land, the same as for wheat; but it is better to apply it directly to the hill. Hollow out the hill with the hoe, put in about a tablespoonful of Guano, cover it over one and a half to two inches deep with soil, and then sow the seed and cover up. If the corn be sowed in drills, furrow out lightly with a one-horse plow, then apply the Guano as in hills, and cover it with the hoe or other implement. At the first time hoeing, put double the above quantity of Guano around the hill, and hoe it in, taking particular care that it does not touch the stalks, otherwise it will be very likely to kill them. If this can be done just before a rain, so much the better. Some apply Guano again just as the corn is ready to tassel and fruit, but we should hardly think this necessary, except in very poor soil. If more than the above quantity be applied to corn, it must be planted extra wide apart, otherwise the growth will be so large as to make the stalks and leaves intermix and produce smut.

Potatoes, Tomatoes, Sugar Cane, Tobacco, Cotton, Cabbage, Cauliflower, and some other crops, may be treated nearly in the same manner as corn.

PEAS, BEANS, TURNIPS, BEETS, CARROTS, PARSNIPS, AND ONIONS.

If these are sown broad-cast, apply the Guano in the same way as directed to wheat; if in drills, as directed with corn, except it might not be best to cover the Guano with over one to one and a half inches of soil in the drill, and then sow the seed.

ASPARAGUS AND CELERY.

It is a good top-dressing for these early in the spring.

MELONS, CUCUMBERS, SQUASHES AND PUMPKINS.

Treat to Guano the same as corn, in the hill, allowing an even tablespoonful for each plant to be left to run to vine.

STRAWBERRIES, RASPBERRIES, CURRANTS, GRAPE-VINES,

And indeed all fruits, may have Guano dug in about the small roots, early in the spring.

APPLE, PEAR, PEACH, CHERRY, PLUM, QUINCE, AND OTHER FRUIT TREES.

Guano not only adds to the size, and fair, plump appearance of all fruits, but is said to increase the delicacy of their flavor. It should not be applied around the *body* of the tree unless it be a *very small* one, but to the extreme ends of the roots, otherwise it cannot be absorbed, and of course will be nearly all lost. Roots of trees spread under ground about the same distance from the trunk, as the branches do above ground. Let the soil be well trenched from one to three feet wide, according to the size of the tree, directly under the circle formed by the ends of the branches, and the Guano then be incorporated with the soil, within a few inches of the top of the rootlets; it will thus find its way to their mouths, and as it decomposes be taken up in the sap for the benefit of the tree and its fruit. If applied later than May or June, it will make a large, soft, spongy, growth of *unripened* wood of no value whatever.

STEEPS AND LIQUID FOR WATERING PLANTS.

For one pound of Guano use 5, 10, or even 20 gallons of water; or at the same rate for a smaller proportion. Stir it up well and cover over the vessel tight, so as to prevent the escape of the ammonia, and let it remain from one to three days before being used. Now water *around* (*not upon*) the plants as occasion may require. If this liquid touches the plant, it is apt to burn it. Previous to watering, stir the earth well around the plant. One pound of Guano for 20 gallons of water may be thought to make a very *weak* steep for watering plants, but such is not the fact; we have seen the most surprising results from watering with a a steep no stronger than this. Some of our friends last year steeped their corn and other grain in this liquid, from 3 to 25 hours previous to planting.—It came up unusually thick and grew very rapidly. For steeps we would recommend 10 to 20 gallons of water to each pound of Guano, using the latter quantity for the more delicate seeds. It is so powerful a substance, there is great danger of its killing the embryo of the seed, if applied in too strong doses. The phosphate of lime and magnesia in the Guano are insoluble in water; the sediment therefore is valuable to spread on the land.

TO THE LADIES.

Guano is very easily applied by you, and in the neatest possible manner, to your conservatory and garden plants. Purchase a neat keg of it containing about 60 lbs., have a hole bored in the head, into which insert a stopper. Now place the keg on its side as if to draw liquor out of it. Then as often as you wish to use the Guano, take out the stopper and draw out what is necessary from the keg with an iron rod flattened and slightly crooked at the end. Now make a liquid of it as described above, or with a trowel, dig a small quantity of it in the earth, around the plant. This, says Mr.

Teschemacher, must be done before the plants form their full-sized flowering buds, otherwise they will begin to make new shoots, the buds will be left behind, and the flowers will open with *diminished beauty*. Be very careful not to let the Guano touch the stems or leaves of your plants, otherwise it will be certain to *kill* them.

A bouquet of flowers may be preserved a long time in water, by adding a very small quantity of Guano to it as often as renewed. A quarter of an ounce to a quart of water would be sufficient. It might be well also to add a table spoonful of pulverized charcoal at the same time.

CAUTION IN APPLICATION.

Be very careful to place the Guano so that it will not touch the embryo, or young roots, or stalks of corn, potatoes, cabbages, tobacco, sugar-cane, cotton, or any plant that has but one stem from its root; for it is of such a burning nature, that if a portion no larger than a small pea comes in contact with the plant, before being watered or rained on, or undergoing partial decomposition, it instantly kills it. (*d.*) With grass and small grains this caution is not important, as other shoots from the roots will immediately supply the place of those killed.

DESTRUCTIVE TO INSECTS.

That Guano is destructive to insects may be proved by any one disposed to make the experiment. Take insects and put them in a saucer or bottle, and sprinkle a little Guano on them; or mix up a tablespoonful of Guano in a gill of water, and pour this liquid upon the insects. It will be found to kill the smaller ones almost instantaneously, and the larger in one to two hours time.

ANALYSES OF VARIOUS GUANOS BY EMINENT CHEMISTS IN EUROPE.

	Peruvian.	*Chilian.*	*African.*
Ammoniacal salts,	33 to 40 pr. c.	12 pr. c.	23 to 28 pr. c.
Animal matter,	5 to 7	3	5 to 9
Salts of potash and soda,	8 to 12	8	9 to 11
Phosph. of lime, Magnesia and Oxalate of lime,	23 to 28	53	30 to 37
Water,	10 to 13	22	18 to 25
Sand,	— —	2	— —

ANALYSES OF VARIOUS GUANOS BY DR. CHILTON, OF NEW YORK.

	Peruvian.	*Chilian.*	*African.*
Phosphate of lime,	26.82	52.65	38.00
Ammoniacal salts,	46.43	3.16	22.94
Oxalate of lime,	5.44	—	—
Phosph. of magnesia, ammonia,	2.00	—	—
Carbonate of lime,	—	8.12	—
Chloride of sodium,	.51	5.36	4.17
Sulphate of potassa,	—	—	
Sulphate of soda,	—	4.41	—
Silica, Alumina, &c.,	1.25	16.22	.58
Undetermined organic matter containing nitrogen,	5.45	3.88	15.26
Water and loss,	12.10	5.20	19.05
	100.00	100.00	100.00

REMARKS.—(*a.*) We should prefer mixing the guano and applying it immediately. Though mixed with five or six parts of loam, more than its own bulk, it is still in quite a concentrated form, and would give off considerable ammonia. But if mixed and immediately applied to the soil, whatever is given off will be arrested by the soil of the field into which it has been intimately incorporated.

(*b.*) Muck that has been dug for a year and left lying in a heap will form one of the best materials for an absorbent as well as a distributor. It is not so moist as to be tenacious, or sticky, but sufficiently so to receive the escaping ammonia.

(*c.*) Guano should always be used in a moist state. For flowers, a few beds of vegetables, or a few favorite trees or shrubs, or for a small garden, borders, &c., it is better to dissolve it. Put a quart into a barrel of spring, river or rain water, stir it well and water at evening through a water-pot.

(*d.*) This is an important caution. There have been instances where corn has been dropped on the guano and came up well; but this must have been owing to fortunate circumstances. Where a copious rain immediately succeeds the planting, the guano would be likely to get leached, and thus prevent injury to the corn. To be safe, the guano should be mixed with the soil on which it is dropt. This may be readily done with the foot before dropping the corn.

For the New England Farmer.

DURATION OF POSTS.

The result of forty years experience and observation, with me, is that common fence posts set in the ground *green*, and butt end downwards, will last, in a sandy loam, about 10 or 12 years. The same set in a like situation, inverted, will last 15 or 18 years. The same timber, (and soil the the same,) well *seasoned* before setting, will last 8 or 10 years longer. I speak of good white chestnut or white oak.

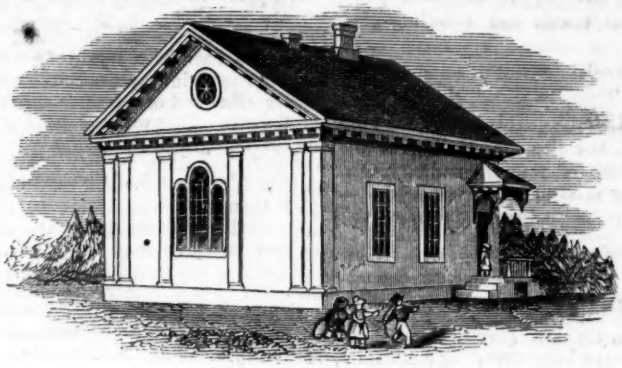
Timber cut in the old of the moon in February, will not be eaten by worms, will not snap in burning, and will last much longer made into posts than when cut at any other time. I have chestnut and white oak posts standing well that were set 28 years since. OTIS BRIGHAM.

Westboro', April 4, 1853.

FEEDING TEAMS.

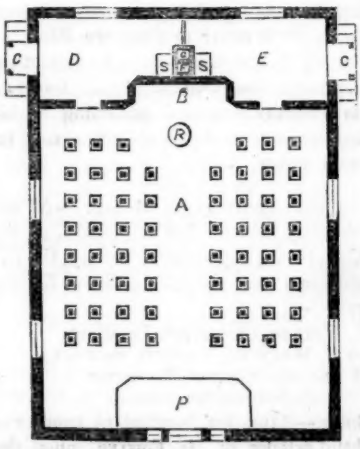
All cattle should be fed regularly, and about the same quantity given at each feed. If from a change of weather or any other cause the appetite becomes a little dull, take away from before them what is left, and leave the place clean and sweet. If oxen or horses are to be put to work at 7 o'clock in the morning, they should begin to feed as early as five, and will require an hour or more to eat. If extra feed is to be given, as C. O. proposes, such as carrots, it would be better to give it at night, after the animal has enjoyed an hour or two of rest. C. O. will observe that it is the nutritive properties of the food assimilated and sent through the system that gives the animal strength, and not the undigested mass in the stomach. A little rest after a hearty meal is always conducive to comfort and health.

PLAN AND DESCRIPTION OF A PRIMARY SCHOOL HOUSE IN EXETER, N. H.



FRONT ELEVATION.

The school-house, of which the foregoing cut presents a somewhat incomplete view, was built under the direction of H. F. French, Orin Head, and J. G. Hoyt, after designs drawn by the latter gentleman. It stands back about 60 feet from the street in the midst of a half-acre lot, and is surrounded and ornamented with trees. In respect to style, construction, convenience of internal arrangement, elegance of finish, furniture, means of ventilation, as well as amplitude of grounds, it may be pointed to as a model. It is 26 feet by 34, and 13 feet high in the clear. The pitch of the roof is 29 degrees. The windows are hung with weights and shaded with Venetian blinds. The walls are beautifully papered and ornamented with busts and casts. As a substitute for a rickety, rattling black-board, the end wall by the teacher's platform is plastered with a mortar of lime, cement and lamp-black, with an outside coat of stucco as hard as marble, and as black as the three bad boys that St. Nicholas dipped in his ink-stand. Over the teacher's platform there is a ventilating trap-door, opening by cord and pulleys into the attic. The attic is relieved of the vitiated air, thus constantly rising into it, by means of a copper ventilator on the roof.



PLAN OF FLOOR.

The abbreviation marks on the plan may be explained as follows:

A, School-room, 25 feet by 25, besides the recess near the chimney, containing 62 arm-chairs, with book and slate-racks attached. The chairs are made for comfort, and are fine specimens of workmanship from the manufactory of W. G. Shattuck, Boston.

B, Recess back of the stove, 6 feet by 2½, finished at the top with a Gothic arch.

C, Broad steps under the porches, defended by balustrades.

D, Entry for boys, about 12 feet by 7½, furnished with hooks for hats and coats.

E, Entry for girls, about 12 feet by 7½, furnished with hooks for bonnets and cloaks.

F, Flue, 12 inches square, plastered smooth inside.

G, Additional flue of the same size, built in case it should ever be deemed advisable to "annex" another school-room.

P, Platform for teacher, 10 feet by 5, elevated 8 inches, and provided with one of Shattuck's desks.

R, Register for the admission of pure air.

The building is raised about 5 feet, and windows are left in the underpinning under the porches, so that the air, which ascends through the register into the school-room, comes fresh from the out-door world. The stove stands over the register;

the cold air, therefore, when admitted, clings, as a matter of natural philosophy, around the hot stove, until it is warmed, and then is drawn over the children towards the ventilator at the other end of the room.

S, Sinks in the entries, provided with pails, dippers, wash-bowls, towels and a *looking-glass for the girls.*

As an item of special interest to small districts in country towns, it may be added, that *the whole expense was just* $1208,73. This includes not only the house itself, but also the grading of the grounds, the planting of several hundred trees, the construction of tasteful fences and necessary out-buildings, together with $300 paid for the lot.

For the New England Farmer.

PATRONS—PATRONAGE, &C.

MR. EDITOR:—In the last *Farmer* there is an article on "Inquiries and Censures," by JOHN WILCOX, and some editorial remarks attached. Mr. Wilcox says "farmers ought to know the truth, as far as possible. If deceived by those to whom they look for correct information, they are under strong temptations to withdraw their patronage, &c. To this you add in substance, "Then the word patronage, as used in this sentence, is not known to us. We have no patrons. When the reader of the *Farmer* thinks he does not get an equivalent for his money, we advise him to seek some other source of benefit. So long as we have hands and feet, and a modicum of sense to guide them, we shall have no patrons. The farmer has his customers for his wheat, corn and cattle, and the printer his for the articles he has to spare, but they are neither of them patrons."

We have often heard "editors" revert to their subscribers in this same way before; yet we never could see the force of the argument, nor can we see it yet in that light. As we see the subject, every subscriber to a paper is a "patron" to all intents and purposes, whether he gets the full amount of his money, or more or less, as the case may be. But if we understand the editor, what he means by a patron, is one who does a piece of work, or favor for another, without any stipulated sum to be paid. Or one who does a piece of work gratuitously for another or makes a donation for a certain object. But I presume we cannot have better authority on this point, than Dr. Webster himself. He says that a "Patron is one who countenances, supports and protects, either a person or a work," &c. And of "Patronage," he says, "Special countenance, or support, lend or aid afforded to second the views of a person to promote a design," &c. Now if any subscriber to a paper or book does not countenance, support and aid the works they pay for, then what do they do? It must be plain as noon-day, that every subscriber to a paper is a real patron in the right sense. So is every customer of the farmer for his produce, a real patron. Of course every subscriber to a good paper, will get his pay, and he may get it in a single number. But this fact, to our mind, does not make him any the less a real patron, by no means. But suppose the paper should fall below par or "mediocral," and yet the subscriber would continue to take and pay for the paper, as long as published, whether it was worth half price or not, what then? Would he, then, and then only, be considered a patron, or would he not be as much a real patron when the paper was in its palmy days.

The plain truth is, we as men are so selfish, that we are not willing to give half as much credit to our fellow-men as we should do. For instance, we have been trying for the last twelve years in our plain way to stimulate the farmers to greater effort and exertions to improve themselves and the soil. This we have tried to do in various and several agricultural journals in the States.—And so far as asking any pay in dollars and cents, we have oftentimes found it hard to get a hearing at all, though all done gratuitously on our part.—This we call real patronage for the press, and editors and publishers may call it what they please. And yet it is not bound up in so close quarters as this even. For it is more on the liberal scale of getting good, doing good, and communicating to others. Every gratuitous correspondent to an agricultural journal can testify to the same thing. What would an agricultural journal be in this age were it not for the help of its numerous correspondents? More than nine-tenths of all these must come from gratuitous writers. Yet, in ordinary journals, it is only a few such as "sub or associate editors" that can be paid for their time. We will just say for Mr. Wilcox that the "Prepared super-phosphate of Lime" is not manufactured at New Haven, Ct. But it is kept for sale there, by Munson & Johnson, of the agricultural store, 49 State Street. Yours, &c.,

L. DURAND.

Derby, Ct., May 5, 1853.

REMARKS.—It affords us pleasure to know that our readers are so watchful of what is said in the columns of the *Farmer;* that Argus-eyed correspondents watch its expressions and weigh its sentiments. A kind correction of our errors can do us no harm, and may be of considerable public benefit. We had rather supposed that the common acceptation of the meaning of the word was that the *patron* had the gift, or disposition of some special benefit, some special countenance or support. The word is never applied, we think, to the butcher, the baker, mechanic or tradesman, in the sense in which friend DURAND uses it. But if its meaning is generally accepted, according to his explanation, we have no objection to it as used in Mr. Wilcox's article.

SULLIVAN CO. AGRICULTURAL SOCIETY.—At the Annual Meeting, holden March 10, 1853, of the Sullivan Co. (N. H.) Agricultural Society, the following gentlemen were elected its officers for the ensuing year:—

JOHN S. WALKER, Claremont, President.
CHARLES E. WHEELER, Newport, Secretary.
JOHN H. HIGBEE, Newport, Treasurer.

THE BIRDS.—Attention is called to another of the delightful articles of Mr. FOWLER, upon the Birds of New England.

For the New England Farmer.

"EXPERIMENTAL FARMING."

MESSRS. EDITORS:—Finding in one of my weeklies an article under the significant and attractive caption, "Experimental Farming," copied from the *New England Farmer*, I felt moved—by the spirit of controversy—to "also show mine opinion." The comparative allusion the writer makes is well calculated to gain him a hearing among some classes of persons who in too many instances are already behind the times in agricultural science. Since he made the allusion I will remind him that one noted in olden time for his wisdom and extensive observation once remarked, "He that is first in his own cause seemeth just, but his neighbor cometh and searcheth him."

Your correspondent strikes his first blow at scientific farming on this wise—mark the expression "The chemist may analyze the soil on my farm * * * and point out the ingredient or ingredients which are wanting, theoretically, and I go to work, practically, and find my land unproductive as before." This *may* be so, is not always satisfactory to those who understand the use of figures. In the *Working Farmer*, Vol. 3, No. 2. Prof. Mapes writes, "Within the last three years we have visited many farms, and some of the owners sent certificates of results." One represented that under our advice he had added the missing constituents to his soil, at an expense of only $4,12½ per acre, with proper tillage, and produced, in consequence, the following crops:—Corn 128 bushels of ears per acre, where formerly with much larger expenditure for manures, but 30 bushels of shelled corn had been produced. Potatoes, 310 bushels per acre. Mangold wurtzel 16 tons per acre, and other crops in proportion. Had your correspondent cited an instance where a person having an analysis of his soil by a competent chemist—had added the required amendment—as in the instance above quoted, and failed of satisfactory results, I might have remained silent; but he does no such thing; he only gives his ipse-dixit, and goes on to prove from his *practical experience* in well-digging that soils are so variable even within short distances that an analysis must be of doubtful utility.

Of his first well, he states: "after removing the soil at the surface we entered a quicksand &c.," of the second, some fifty feet distant, he continues: "after removing the soil we came upon hard compact clay gravel," &c. and closes the sentence with the remark, "here was an illustration of the change in soils worth noticing." Here is an illustration of the way some people jump at conclusions, unparalelled in my previous reading. I had always supposed that the portion of the earth's surface through which the plow passes, into which the manure is worked, and to which the seed is committed, is the *soil*—proper—the part that chemists and agriculturists had most to do with, but your correspondent having removed this in both instances without noting any difference, has seemed to entirely lose sight of it, and digging down into the *sub*-soil and not finding the bowels of mother Earth perfectly even and uniform, he announces the discovery of a principle in agriculture that is likely to baffle the combined skill of chemists and farmers in their attempts to improve our system of husbandry.

In perfect keeping with his conclusions, he refers to the course of practice of a self-constituted physician as an example worthy of imitation by farmers in their treatment of infertile soils. Suppose he should find a quantity of sulphuret of iron conveniently near his compost heap; we should expect, according to his own recommendation, to find him—following the example of his model doctor, carting it in for the improvement of his farm.

Would not it be strange if it did not benefit some portion of his changeful farm? Again, suppose he wished to ascertain whether his soil needed lime—for instance; would he procure a quantity and compost it with numerous vegetable and mineral substances, and if his crops were benefited by the application of such artificial manures, continue year after year to add lime to his compost in the belief that it is the required amendment?

J.

P. S.—The above was written before receiving the March number of the *Farmer*, which contains your remarks showing some of your objections to the recommendation of your correspondent, which the paper in which I first read the article did not copy.

I find too in the same number another correspondent seems to have doubts as to the practical benefit of analysis of soils. He says, "Is it possible that by careful analysis of soils from sterile Mass., and of those from the Scioto valley, famous for its wonderful fertility, no clue to the vast difference between the two can be detected?" "I here confess my surprise at the results, and will acknowledge they have done much to shake my faith in all chemical analysis of soils."

I would inquire if the specimen of soil from Hampden Co. is a fair representative of sterile Mass. soil; also what is the average produce of the Hampden Co. soil. "Having witnessed the growth of corn in both States," has he found out no difference in the geological character of the different places, nor found any difference in mechanical condition? Has he taken into consideration the difference in latitude, temperature of climate? &c. Has he read Prof. Johnston's lecture on the Relations of Physical Geography to practical Agriculture?

J.

Bridgewater, March, 1853.

For the New England Farmer.

RURAL PLEASURES.

also p. 158.

There is, perhaps, no situation in life which affords greater facilities for enjoyment than that of the husbandman. Exempt from the many cares which throng the pathway of the professional man, the farmer finds ample opportunity to cultivate his mind and expand his intellect, and even while engaged in labor, may still be a learner from the great book of Nature.

As the plowshare turns the sods, his eye wanders over the rich landscape, and in the meandering streams, the wood-crowned hills and smiling vales, he traces the finger of God. The glory of the spring-time is not by him unheeded. He sees with delight the delicate verdure mantling in beauty the awakening earth—he views with pleasure, the fair petals of innumerable blossoms as they unfold to the genial sunbeams, and he feels upon his cheek, the soft breeze which is laden with their balmy perfume. For him, the minstrels of heaven

have a song of joy, and all nature seems hymning an anthem of praise. Gladly the farmer greets the spring-time, and with a light heart prepares his fields, and sows the tiny seed, which will yet yield a glorious autumn offering. No feverish excitement disturbs his placid life,—no wild dreams of fame and glory—no ambitious schemes, whose bright hopes gleam for a space, then fade in darkness away. His course is before him—simple and plain—peace and contentment are the inmates of his breast. Day after day beholds him at his healthful toils, and fortune smiles upon him. His table boasts few foreign luxuries, but plenty is ever there, and the viands produced by his own care are partaken of with a relish which the epicure might envy. Home is to the husbandman a delightful spot. Care flees from his fireside, and the evening hours are spent in calm converse or innocent glee. When night's sombre curtains enfold the earth, he finds a sweet repose, for toil has lent "a blissful zest to slumber."

How many young men who now forsake their rural homes and seek the crowded city, would escape the snares of the tempter and shun the cup of sorrow, if they remained upon the peaceful farms of their fathers. E. C. L.

Lebanon, Vt.

WITCH GRASS.

There are few spurious productions characterized by a more invincible tenacity of life than witch grass. When it has once become thoroughly radicated in the soil, it is almost impossible to get rid of it. Some writers who appear to be impressed with the idea that no human effort is competent thoroughly to cleanse lands which have become fouled by its presence, recommend cultivating it as hay; but we can contemplate witch grass in no other light than that of a most troublesome and exhausting truant, and one that the farmer cannot do better than to keep at a distance, let the expense be what it may. That it makes a most excellent and nutritious feed for stock, when cut early and properly cured, admits not of any doubt; and we are far from denying that there are any circumstances in which it may be advantageously and profitably cultivated, as for instance, on soils of a low description, where the surface is somewhat soft, and which are otherwise constitutionally incapacitated for tillage. In such situations there is at least a strong probability that its introduction would be attended with success. But no farmer who understands its nature, will ever be seduced into the practice of sowing witch grass seed on lands intended to be cultivated subsequently. The well-known difficulty attending its eradication, will operate on most minds, as an efficient caution in this respect. Indeed, every one who appreciates easy and thorough cultivation, will guard against its propagation and spread as much as practicable. In light soils, of a rich and warm character, the labor of extirminating it—unless extra means are resorted to—is usually the labor of a life, and we can now point to many fields in which sufficient extra labor has been performed in consequence of the usurpation of this pest, to purchase the soil twice over, and yet the crop is more luxuriant and vigorous than it was when attention was first directed to them. The roots of this grass are very strong and numerous, they are also remarkably tenacious of life, and unless they are removed from the soil *entire*, this may be a temporary abridgement of the evil but no permanent cure. Some *gardeners*, when this pest has become radicated in their soil, cover the surface with boards, and allow the land to rest a year. In this way it is suffocated, and is probably more easily destroyed than in any other way. The loss of the year's crop is of trifling consequence, as the presence of the witch grass would render the expense of cultivating it too great to allow of much profit, even under the most favorable circumstances.

When a soil can be covered for two successive seasons, in this way, the eradication is thorough, generally speaking, and with proper care in the after cultivation it will rarely be restocked. Salt, in large quantities, will destroy witch grass; but the amount required for this purpose renders the undertaking expensive, especially if the soil is deep, rich and mellow, as in such cases the roots extend to a great depth, and generally numerous, vigorous and strong. It propagates mostly by its lateral roots, and when allowed to grow, generally produces a medium crop for two years; it then begins to dwindle, the stalks become annually thinner and less numerous, and it finally "runs out," although upon plowing and manuring the land, it always reappears and flourishes as before.

The best and cheapest way we have found to exterminate this grass, is, to plow deep, pulverize finely, and then with a rake and the hands gather up the roots and cast them away, or burn them. Then with a three-toothed cultivator, the teeth being ten or twelve inches long, go over the ground thoroughly, which will bring up a still further portion, which must be gathered as before.

In this thorough manner we have cleared an acre in a single season so as to find little trouble from it afterwards. Harrowing, raking with the spring-tooth and the independent acting rakes, have proved utterly futile with us in collecting these grass roots.

Harrowing late in autumn, after the ground has been frozen, and thawed again two or three inches in depth, is said to kill the roots by turning them out and exposing them to winter frosts.

CURE AND PREVENTIVE OF THE POTATO ROT.—Mr. H. Penoyer, of Union county, Illinois, publishes in the *St. Louis Republican* his experience and success in preventing the potato rot. He has tested his preventive for four years, with perfect success, while others in the same field who neglected it lost their entire crop. It is asserted, also, that the root is nearly double the size. The remedy is as

follows: "Take one peck of fine salt and mix it thoroughly with half a bushel of Nova Scotia plaster or gypsum, (the plaster is the best,) and immediately after hoeing the potatoes the second time, or just as the young potato begins to set, sprinkle on the main vines, next to the ground, a table spoonful of the above mixture to each hill, and be sure to get it on the main vines, as it is found that the rot proceeds from the sting of an insect in the vine, and the mixture, coming in contact with the vine, kills the effect of it before it reaches the potato." Mr. P. asks nothing for his discovery beyond what those who are benefited are willing to give, and he desires a test to be made before an opinion is formed. This is reasonable, and the experiment costs so little that it is worth testing.

For the New England Farmer.

THE FARMER'S CABINET.

The field of science which invites the farmer to investigation is a boundless one. The atmosphere, the earth with its rocks and plants, its animals and insects, and immense variety of soils, are all intimately connected with his success in his profession. All farmers, who have for a length of time cultivated the earth, may be supposed to have *some* knowledge in all these matters, for observation, however blunted it may have appeared, will sometimes be in action, and when allowed to exist, practical benefits will result.

Now one of the benefits we claim as resulting from farmers' lyceums, beyond that furnished by the library, with its shelves filling with scientific works, got up by individuals who have closely investigated the subjects on which they treat, and by the means we have proposed, bringing the fruits of their researches within the means of all who desire the benefit of them, is that by these social gatherings of exchange of thought, the *result* of the observations of the many become the common stock of all. So, then, if under certain circumstances, Mr. A. has seen things different from their presentation to Mr. Y., it is seen at once, that individual observation has not been pushed to its full extent, and then the opinion of each, being contradictory to the other, though each may have been right under the circumstances, not only they will enter the field with new zeal and fresh hopes, but their conflicting opinions will draw others into the same work,—the curiosity will be excited, investigation will follow and facts demonstrated which to them might have forever remained mysteries.

To aid in these investigations and to make all certain that things are called by their right names, we would have well selected cabinets connected with all these institutions.

First, we would have a cabinet of minerals. Soils consist to a great extent of the disintegration of rocks, and minerals are the representatives of these rocks. Now the wearing down of mica slate does not produce a soil like that of limestone origin, nor do the different varieties of limestone produce a soil alike in its proportions. But variety is found to exist as often as the composition of rocks changes. Consequently, the productive power of the soils vary. Their character, to a great extent, may be determined by the character of the principal rock, and so when the field is distant, by a specimen of the rock we may approximate towards the quality of the soil. So then, we would have a mineralogical cabinet connected with the farmers' lyceum. And this should in no way be confined to fragments of rocks themselves; but should embrace, as far as possible, the different varieties of soil made up from these rocks.

Then we would have a botanic cabinet. Here we would have well prepared specimens of all the grasses and grains fit for cultivation, neatly arranged in their different species and varieties, so that the young farmer could mark at once their peculiar features and see the difference they present in their different stages from wild growth to the most successful cultivation. In addition, let such plants as experience has proved to be noxious to the farmer's interest, have a place here, labelled as such, to warn the unwary and inexperienced of the danger of admitting them to his grounds.

If specimens of different varieties of wood, with the leaf and seed, were added, it would give additional interest and open a beautiful field of study to the young mind. Then we would have a cabinet of insects, each labelled strictly with its good or bad qualities. Many of these are fatal pests to the farmer, yet how little does he know of their general character! How few of them can he recognize by their countenances, much less can he call by name when he meets them. In short, so great has been his indifference in the matter, that probably not one in fifty of the farmers of New England can distinguish his friends from his foes in the feathered or the insect races. Hence, it is no wonder that he often sacrifices the former and gives countenance to the latter. His *ignorance* in the matter leads him to do it and suffer the losses that too often result. And yet who is to blame for this ignorance, when he every day is holding communion with nature in all her works, and each day furnishes some leisure moments when he might investigate the things that surround him in the air above and the earth over which he walks,—when science is opening her rich store-house and inviting him to come in and take liberally of her treasures.

We have thus glanced hastily at what we would have a farmers' lyceum cabinet contain of natural history, to which we would add works of art, such as drawings and models of implements, paintings of animals and fruits, and indeed everything that can interest, enlighten and please the farmer's mind and keep it in vigorous and healthy action. And here we submit the query, if there was a place in each town or even in every county like the one we have briefly sketched, would not its influence on agriculture and the rural arts be of a salutary and progressive character? Under such circumstances, with the facts drawn out and placed before their eyes, would not farmers see at once, that science in beauties and its practical influence was for them, and instead of encouraging their sons to leave the plow and the scythe to engage in other professions in hope of greater glory or gain, would they not see a field of ambition and reward open here, more than large enough for all their claims? And young men, too, would see the bright destiny that was inviting them upward and no longer pant for the renown of counter jumpers or seek professions of uncertain success, feeble in-

dependence, and have no greater demand on intellectual progress than their own.

We hear objections to the plan we have proposed. The ghost of some old Hunks is whispering in our ears that we have laid out too much work. It *can't* be accomplished without serious interference with the more important object of getting "*the dollar*,"—the almighty friend of ignorance and parsimony. We do not despise "*the dollar*," but wish we had enough and to spare to many such institutions. It would be a bright investment. But we insist upon it, that man is endowed with too high faculties to be borne down by the grovelling demands of pecuniary gain. He has intellect to appreciate nobler objects than bags of gold or large domains,—a mind that can expand through infinitude, and not only drink in pleasure from all the fountains of nature and art, but can turn the waters of those fountains through the elevated regions of taste and refinement to increase, beautify and variegate the products of the earth, and make cultivation a delightful toil.

It *can't* be done. Individuals have their libraries, not only in other professions, but in the agricultural, and as long as this is the fact in cases of men whose business occupations are making continual drafts on their time, often bringing toil and fatigue in times when they anticipated leisure, cannot associated effort accomplish the same object? Especially, cannot farmers in whose ordinary pursuits the very elements, with whose power he should be familiar, throw obstacles to labor do as much?

It is an age when much, very much is saying and doing on this matter of agricultural education; yet, after all, but very little progress seems to manifest itself in the matter. Thus far we may infer there has been more wind than rain in the strong flow of words that have been uttered on the subject. The wind will ere long pass away, and then we hope farmers will take hold of the subject themselves, assert and defend their rights—take the position that God has given them, and resolve that they will be an intellectual and a highly educated class. When they do this, success hitherto unknown, will crown their efforts. W. B.

Elmwood, Feb. 15, 1853.

For the New England Farmer.

THE SEASON.

Mr. EDITOR:—The season up here in the Old Granite State, is about four weeks earlier than it was last spring. The farmers have commenced plowing and sowing a little, and will finish most of their spring sowing in the course of ten or fifteen days. Winter grain looks as well as it has any spring for several years past. There being no frost in the ground, the grass is quite green as soon as the snow is gone. The sugar season was not as good as it was last by full one-third. I think that we shall have hay enough in this section of the country, as the season is so far advanced that the cattle are out to grass in some places.

SAMUEL L. POWERS.

Cornish, N. H., April 15, 1853.

SPENT TAN BARK.—The *Pa. Farm Journal* tells of a successful application of tan bark, made by mistake to a portion of the editor's garden. He ordered a certain part to be well spaded and manured for beans, but the gardener dug up another plot and applied a heavy coating of pretty well composed tan bark. The soil was a stiff clay, and no other manure was applied or had been to this bed for several years previously. The beans were planted and were the most thrifty and vigorous in the neighborhood, and the stiff soil has become quite mellow, and appears to retain its warmth and moisture much better than any other in the garden.

For the New England Farmer.

INSECTS---PLUM-TREE WARTS.

The depredations of insects upon fruits and vegetables may sometimes prompt the farmer to wish it were in his power to exterminate their whole race. But, as the Creator has granted every green herb for food to "every creeping thing," no less than to fowls and beasts, as well as nobler man, and has effectually secured them from any such sad doom, we must content ourselves to be fellow-commoners with them, despite all we may wish or do. The fruits, flowers and plants which we claim as exclusively ours, they emphatically declare, by unmistakable deeds, are no less theirs; for hate and fight them as we may, they will live, beget their progeny, and eat freely what they like, find it as they may, in the prince's or the humblest cottager's enclosure. Choicest fruits, sweetest flowers they love, as decidedly as man. Do they invade our *rights?* Not so; they claim instinctively, only their own. A vast family is supplied from the same bountiful hand, and it would be wise for the agriculturist to reflect more upon obvious facts, in the providential arrangements established between him and inferior orders of animal existence.

Suppose all insects that annoy us and prey upon fruit trees and cultivated plants were extinct. Then what would become of the birds? They would be robbed of their appointed food, and starved, and their matchless, wild music would greet us at our hard toils no longer. What solitude, amid the luxuriant vegetation, and bright suns of summer! Say you, be it so? Our fruits and grains are safe, from these vile foes. Patience, friend—think again, what result would follow even as to these. Not a blossom or germ would be attacked, by a marauder, and all of them would be left to live or die as they might, in unimpeded development. Think you that your trees would be sure to cast off all the superfluous fruit, and reserve only a quantity which they were capable of well sustaining, and bringing to perfection? Not so; they would be over-loaded, and your fruit would be smaller and of inferior quality, and at the same time the trees would be greatly exhausted, and perhaps rendered shortlived, by overtasking their vital powers. Their wood and branches must grow annually, and be sustained by the same stock that yields the fruit, and in due proportion to the general demands upon the trees for maturing their present fruit, and preserving their vigor and health for subsequent years. Many lessons the Ruler of Nature teaches us, which through inattention we are wont to overlook. If animals need rest, and can endure only a given amount of labor, why should not fruit trees follow the same law, and be relieved of the excessive burden they would be destined to bear, without that kind of pruning, for which certain insects are employed? Let us not

say, then, that they are altogether pernicious, when we see our peach branches sure to break down without props, or unless much relieved of their burden by our own hands, and when we may be sure a superabundant and imperfect fruitage would load our orchards, if no worm-eaten apple were dislodged from their branches.

As to plum tree warts, my conjecture is, that as they have not, so far as I know, been proved to be produced by insects, they arise from the want of the healthy deposition of the woody fibre, and that this may result from obstructed circulation of the sap, this being caused by deficiency of one or more ingredients in the soil. Impeded circulation of sap may cause an accumulation of it in particular places, there forming the warts. If the conjecture should be well founded, the desideratum would be to ascertain what to apply to the soil around the tree, to promote free circulation of the sap. I desire vegetable physiologists to cast light upon the subject if they can; if such is the disease, what is the cure? We would refrain from constant amputation of the trees, if a better course can be prescribed.

A young seedling peach tree began last spring to send out long, curly, misshapen leaves, on certain branches, and where these grew, the branches were distended, grew crooked, and stopped extending themselves. Free application of urine to the root was followed by their recovery and healthy growth. Hence I surmise that as the disease of the peach tree yielded to this application, the same, or phosphate of ammonia, or phosphate of lime, might have the like effect upon the plum tree. But fair experiments are better than conjectures or surmises.

J. Lee.

Salisbury, Conn., Feb. 8th, 1853.

P. S. Feb. 9th. Since writing the foregoing remarks, my conjecture as to the cause is much strengthened, by examining two warty twigs from a neighbor's plum tree. I have wanted a lens however, to enable me positively to decide whether there are any traces of a minute insect's work. Two holes through the black coating of the largest wart I traced with my knife carefully, and some evidence of the dusty gnawings of a worm was indicated for some distance, and a minute trace of his course seemed discernible. Yet if a worm had been at work, he might have sprung from an egg deposited in the wart while young and growing, and not be the original cause of it. The other twig presented no discoverable symptom of this kind. The diseased growth encompassed the twig half round, the distance of about two inches in length. It is evidently a *fungus formation*, shooting in layers from the wood of the twig, and extending sometimes nearly to its pith. A little below the wart, the early stage of the disease is seen, indicating that the bark had first cracked open along the twig, and then exudation of sap had formed an incipient wart firmly attached to the wood beneath. The healthy deposit of woody fibre beneath the bark gives place to this curious exhausting malformation, whatever may be the peculiar predisposing cause. The knobs and wens on oaks possibly are of a similar character, especially those found at times, upon their smaller branches. The exuding gum of peach trees seems incapable of producing a like effect, yet it extends disease beneath the bark, by being forced out of its appropriate course. So, also, I find the inner bark of the plum twig diseased some distance below the wart. What I have thus stated, even if I have formed a wrong opinion, may awaken investigation, and perhaps result in a clear explanation of the subject, by some pen more competent to the task.

J. L.

For the New England Farmer.

MONTHLY FARMER FOR APRIL.

Did you ever write an article for the *Farmer*, several pages of fair, legible manuscript—(of course you would send no other to the printers, as an honest man you would not, for they earn a living by their profession, and when obliged to "take" bad copy they lose time, patience, and money, too, almost as directly as though it were "picked" from their pocket by the careless writer; and not only do they receive all such excuses as "in haste," "no time to re-write," "excuse my scribbling," &c., most ungraciously, but they do *sometimes* say hard words, *very* hard, about the writing and the writer; no, *you* never sent any such!)—but as I was about to inquire, did you not experience something like disappointment when you saw how small a space your article of several sheets of letter-paper occupied, when printed? I have felt so myself; and this has set me a-thinking of the mass of manuscript required to fill up a single number of the monthly *Farmer*, which consists mainly of original matter.

But the *amount* is not all; look a moment at the *variety* of the "pile" of brain-dust that is monthly coined into a circulating medium, at this one mint.

Besides all that is written by the editor, including reports of over fifty speeches or remarks at agricultural meetings, and replies to some ten or fifteen correspondents, by initials, in various parts of the country, and a few choice selections, we find, in the April number, in the order of its pages, articles on various topics, from gentlemen who have "subscribed themselves" as follows:—

——, (no signature.)	Silas Brown, Wilmington.
F. Kyle, Chester Village.	B. F. Conant, Lyme, N. H.
Henry F. French, Exeter, N.H.	S. F., Winchester.
G B. Clarke, Leonardsville.	H. D. W.
E. C. L., Lebanon, Ct.	Geo. B. Green, Windsor, Vt.
Solon Dyke, Columbia, S. C.	J. W. Proctor, Danvers.
Bachelor.	John Brooks, Princeton.
Bowen Barker, Hanson.	J. Reynolds, Concord.
J. F. C. H., Newton Centre.	A. G. Comings, Mason, N. H.
Benjamin Willard, Lancaster.	John Merrill, Bristol, N. H.
W. D. B., Concord.	J. W. Proctor, Danvers.
E Scott, Ludlow, Vt.	Young Farmer.
W. Clift, Stonington, Ct.	S. Tenny, Lewiston Fal's.
W. B., Elmwood.	J. W. Proctor, Danvers.
B.	J. Reynolds, Concord.
L. S. H., Northampton.	J. A. S., Colebrook, Ct.

One or two thoughts are suggested by the foregoing list.

First, that mere initials deprive an article of much of that force and reliableness of character, which the name in full, and place of residence, of the writer, confer upon his production.

Secondly, that the names enumerated show the impropriety of holding the editor responsible for all opinions that may be advanced in the columns of the *Farmer*. One would suppose that the printer sufficiently distinguished the editorials from the communications, and both from the selections, to prevent doubt or confusion. The editorial is always "leaded," by which the lines are so separated as to give it an open appearance, while the

lines of all other articles are "close" together. At the head of each communication is this announcement, "*For the New England Farmer;*" which is as much as to say, "this article was written *for*, not *by* the *Farmer*, and therefore the responsibility thereof belongs to the writer," whose name, or "mark" at least, is appended. As to selections, we find their source or "credit" distinctly given.

While some readers confound or overlook all these distinctions, and regard the *Farmer* as an indivisible whole, for which the editor alone is responsible, there are others who do understand them, but hold that the editor ought not to allow space to be occupied in the propagation of what *they* regard as heresy. Alas, poor human nature! That same old leaven which fermented society when the Copernican system was announced, when the first saw-mill was mobbed out of England, when men sneered at Fulton's steamboat, still lurks in the whole lump of humanity; so that the editor of the *Farmer*, in the number before us, finds it necessary to announce, in a note to his account of a Legislative Agricultural Meeting, that "the reports of agricultural discussions at the State House, give opinions for which we feel no sort of responsibility. This is the case with communications which we publish." And why should you? Who ever thought of holding the President of the Senate, the Speaker of the House, or the reporter of either body, responsible for the opinions stated in debate by the members? Why then the editor for those of his correspondents, so long as they do not transgress the "rules of order," which he should see to it are always observed?

The importance of the utmost freedom of discussion on the subject of American agriculture, must be an apology for these remarks. In our efforts to build up an *American system*, we may find it necessary, to pull down some of the principles of the European one brought over by our fathers. We have not only to establish principles, but to root out prejudices; not only to learn things new, but to unlearn time-honored practices. One of the committees of the Massachusetts board says: "We are practising, on principles and theories originating in a country, in some respects widely different in climate, soil, products, and the social condition of its laboring population. In England the farmer has to guard against excess of moisture; here he has to guard against the want of it. There, land is dear and labor cheap; here, labor is dear and land cheap. Yet our agricultural works are mostly of English origin." We need, therefore, a system adapted to our situation. The exercise of our own eyes, experience, and judgment, is required, in its construction; and a pretty large margin must be allowed for the various opinions of those who are heartily engaged in this great work. The principle that holds correspondents amenable to editors, would hold the editor, also, responsible to some "higher power," and must result in nothing short of that censorship of the press which has always checked progress and improvement, and bound the people to ignorance and servitude. How disastrously this principle would affect the character of the *Farmer*. It would destroy that independence, freedom, originality, and spirit, which now mark every page, and give interest to the whole.

Make the editor, or any one of his correspondents, responsible for all the opinions advanced in the April *Farmer*, and what a fluttering there would be among the "articles" of which it is composed.

Notwithstanding, for instance, that the editor has often expressed his belief that "successive improvements" have been made in plows, on page 158, "Bachelor" is allowed a "confab," in which preference is expressed for one 20 years old, and the "cold shoulder"—a habit of all bachelors—is given to modern "improvements."

On page 168, the editor gives tables, from various analyses, of the nutritive value of roots compared with hay; by which it appears that 1000 parts of carrots contain about the same amount of nutritive matter as 1000 parts of herds-grass, or 2000 parts of clover hay. Yet on page 183, experiments are given which place the value of carrots at "between one-third and one-half that of good English hay." On page 195, Mr. Clark estimates the cost of dressing an acre with barn-yard manure at $42, with guano only $7,50; yet the editor finds it necessary to caution farmers against a "guano fever," and recommends it only as an adjunct.

Similar instances, to almost any extent, might be adduced, but the foregoing will suffice. Truth, not agreement, should be the object sought. "Many men of many minds," is an old saying; and all the inquisitions, racks, censors, and spies, yet invented have failed in making men think, speak and write alike. As we have done, so let us continue to do—"agree to differ;" and each one bear the responsibility of the reasons given for the faith that is in him.

Having said thus much in relation to the April *Farmer*, in general, we have space for but a few remarks upon the articles in particular.

The suggestions in "the calendar for April" respecting *plans*, would furnish woof for the whole web of a volume. Who can give a better statement of the difference between great men and little ones, than that the one can, and the other cannot, form distinct plans of action?

Until "*New England Housewives*" bemoan their lot as they "compare their state with the imaginary comfort" of those who have slaves

> ——"to fan them while they sleep
> And tremble when they wake,"

it may be unnecessary to discuss further this forbidden topic, especially as it would seem that those who "love" slavery are already engaged in "combatting" and "exhorting" "matrons" at home.

"*Shell Lime.*"—The writer, or printer, has put an extra "bushel of salt" into the directions for preparing this article. Has this composition been tried extensively?

"*A New Grass.*"—We have here a very sanguine recommendation of a new grass, particularly for light soils, which the writer obtained from a single plant found among turnips raised from English seed. The committee on Farms of Worcester Co., who examined this grass, is rather less sanguine than Mr. Willard appears to be. On the pine-plain pasture, they found "much white clover in blossom, and *some* of the brome grass." As hay, they speak of it as "coarse," and reserve their recommendation of its general use until a "jury of cows" shall have passed upon it. (*Trans.* 1851, p. 153. Is it not time this verdict should be rendered?

"*Influence of Newspapers.*"—Mr. Brown gives us a lecture here, that ought not to be forgotten. "Can a man take fire in his bosom and his clothes not be burnt." Can the family read some papers weekly, and correct notions of life not be destroyed! When farmers complain that their sons leave for the city, and that their daughters prefer the factory or shop to a good home, I feel curious to learn the character of the newspaper they have provided for their children.

"*Farmers' Libraries,*" recommended for neighborhoods. I like the suggestion of the editor that town libraries be supplied with agricultural books. So far as possible the established and endowed institutions for education, and all the usual means of improvement at command, should be made available for the advancement of the agricultural interest, instead of looking for new and untried schemes.

"*Legislative Agricultural Meetings.*" — With this number of the *Farmer* in our hands, we can sit by our own fire-side, and "hear" the discussions at four of these meetings; when "Farmers' Institutes," "Fruit Trees," and "Manures," were debated. Few of us can go to Boston and attend these assemblies; the editor therefore gives us full reports of the sayings of our wise men.

"*Agricultural Mass Meeting.*"—The discussions and speeches on this occasion, judging from the reports here given, were of rare variety, and ability—the man of science and the rigid practical man, met face to face, where

"Mind with mind did blend and brighten,"

on such topics as farm buildings, stock, education, root crops, manures, &c., &c. The remark that we cannot "re-produce stocks [of cattle] imported, any more than we can breed Englishmen," and the reply of Mr. French, furnish texts for thought, and, I would suggest, for dissertations. "Although we are from the same stock, we are not Englishmen." Is not the difference alarming? What mean the sunken cheeks, depressed chest, round shoulders, projecting head, decayed teeth, pre-ternatural bright eyes, and sickly countenance, that distinguish the American everywhere?

"*The farmer with two ideas,*" by the author of "Eating their bodies up," articles on "Grafting," on "Forcing Vegetables," "Benefits of Associated Efforts," "Ornamental Trees," "Experiments with potatoes, as to manure, time of planting, seed," &c., and a great variety of other instructive and interesting articles, that fill up this number, have as little need of my recommendation as I have space in which to give it. I wish, however, just to ask the boys if they read the last article in their department. Who will read it again, and look out for "number one," by heeding its suggestions. A READER.

Winchester, April, 1853.

SCYTHE FASTENINGS.—Every thing that tends to facilitate the business of haying, if it does not come at an extravagant cost, is desirable. Labor is always high during that busy period, and the crop is of such a nature as to depreciate rapidly if not gathered at the proper moment. We want not only good tools, but those that are not easily liable to get out of order. The scythe is the important implement at that time. We notice a new way of securing the blade of the scythe to the snath, by passing its shank through the end of a stationary metal cap, and securing it by means of the upward pressure of a screw. This invention is by Mr. ALPHEUS KIMBALL, of Fitchburg, Mass., and it seems to us to be a decided improvement over any other mode we have seen.

For the New England Farmer.

INQUIRIES AND CENSURES.

MR. BROWN:—I notice in the *New England Farmer* an advertisement for super-phosphate of lime—a chemical compound, said to be very useful as an application to crops of different kinds, on light, loamy soils. It is offered for sale in bags or barrels. Its price is not stated, by the pound or hundred weight, which is a great defect in the advertisement. (*a.*)

No common farmer can with safety purchase this, without knowing its price, and its fertilizing qualities, and how to apply it, and in what quantities. If he should, without any experimental knowledge of his own, or directions from others who might know, he would suffer a loss in proportion to his outlay; and thus his prejudice against book farming and agricultural papers be increased. (*b.*)

Is it not the duty of an editor of an agricultural paper, when he inserts a notice of a new fertilizing substance, to state its price and what he knows about it, and how it is to be applied? (*c.*)

Farmers ought to know the truth, as far as possible. If deceived by those to whom they look for correct information, they are under strong temptations to withdraw their patronage. (*d.*) The truth should be told and all known facts stated, and if the farmer suffers loss, he has no one to blame excepting himself.

There are humbugs in agriculture, as well as in politics; and if editors of agricultural papers give them their sanction, they do an essential injury to the cause they profess to aid. (*e.*)

It is not intimated that the *New England Farmer* is of this character; its editorial, and other articles, are of practical utility, but its advertisement in relation to super-phosphate of lime needs explanation. Is this as good as that manufactured at New Haven, Conn., styled improved super-phosphate of lime, and sold at two and a half cents per pound by the quantity? JOHN WILCOX.

Newport, N. H., April, 1853.

REMARKS.—We give all concerned, readers and advertiser, the benefit of friend WILCOX's communication, as well as to afford us opportunity to say a word of the relation which exists between the publisher and advertiser.

(*a.*) It seems to us that advertisers, as a general thing, would find customers more readily and save themselves unnecessary vexation and expense, by stating the price in plain terms, of the commodity they wish to sell. And in regard to special manures, no farmer in the possession of his senses would think of ordering them before knowing their cost. He is, in the first place, obliged to write and ascertain what the price is, and then, if

it suits him, write again to order the article.—This causes unnecessary delay and expense.

(*b.*) If a farmer hasn't a head of his own, and will not think and investigate for himself, he has no cause to blame the books or newspapers. He should not go into large outlays for manures or any thing else upon the declaration of any book or newspaper in existence. Let him begin moderately, "try all things and hold fast that which is good." There are so many varying circumstances, that no set of rules will be applicable to all farms. The cultivator must learn this, and then exercise his own judgment, after such discussions with his neighbors as he may always be able to have. As a conductor of a public journal, we feel bound to give our best energies to the work in which we are engaged; mind and body, and if need be, a portion, at least, of our estate. No part of life ever found us a more ardent student than in your service now; no heart beats more responsive to the calls that come up from every part of the land for "more light," in the great art which sustains us all. This application of the mind, together with the daily application of the hands to the cultivation of the soil, ought, and does give us confidence in a great many particulars in relation to the art. But after all, we are fallible, and mean to be cautious.

(*c.*) No! A skilful chemist and practical farmer, for instance, states that he has prepared a valuable fertilizer, and desires to make it known through the columns of the *Farmer*. Are we bound to refuse him that right until we have experimented on his article two or three years, or incurred an expense of $25 to procure a chemical analysis? Certainly not. The advertising department is out of our province. We sometimes refer to advertisements when we are confident the article spoken of is worthy public attention; beyond that, we have nothing to do, confident that the publishers will admit nothing having an immoral tendency, or in any way injurious to the public welfare. Our correspondent is referred to another article in this number signed "A Reader."

(*d.*) We agree with the general proposition of this sentence, but its connection is unfortunate. Because we refrain from speaking of an article advertised, it cannot by any fair process of reasoning, be supposed that deception is intended. Then the word *patronage*, as used in this sentence is not known to us. We have no patrons. When the reader of the *Farmer* thinks he does not get *an equivalent* for his money, we advise him to seek some other source of benefit. So long as we have hands and feet, and a modicum of sense to guide them, we shall have no patrons. The farmer has his *customers* for his wheat, corn and cattle, and the printer his for the articles he has to spare, but they are neither of them patrons.

(*e.*) This, too, is correct doctrine, but placed in juxtaposition with foregoing remarks, admits of different constructions. But the premises being wrong in supposing that we are bound to approve or condemn whatever may be found in our advertising columns, the deductions that follow are also wrong.

We wish this matter understood. Unless we approve an article advertised, the fact that it appears in the columns of the *Farmer*, is no evidence of commendation from us. The article in question, super-phosphate of lime, has been spoken of by others, in our columns, and analyses have been given by distinguished chemists which we will insert. The price of the super-phosphate is about $55 per ton.

GRECIAN FARMERS.

Professor Felton, of Cambridge, is delivering a course of lectures at the Lowell Institute, in this city, on "Life in Greece." From his third lecture, as reported in the *Traveller*, we take the following interesting description of rural life among the ancient Greeks.

The love of rural life was one of the deepest passions of the Grecian heart, beyond the realm of Arcadia, real or ideal. What lovely touches of nature adorn with their exquisite beauty the dialogues of Plato and even the comedies of Aristophanes. Through the whole compass of Greek literature, the sights and sounds of the country, the sweet, calm sunshine, the fleecy cloud, the song of the lark and the nightingale, the rising sun, the rich meadow, the cattle feeding in the pastures, furnished thoughts which moved harmonious members. When the Peloponnesian war opened, the plains of Attica were covered with residences, elegantly furnished, which the inhabitants with regret and tears looked back upon from the walls of the city, while the Spartan armies were laying all waste with fire and sword. The country was tastefully decorated with little temples or chapels, consecrated to the nymphs and rural deities; and the lands were made holy ground, because in them were buried the ancestors of the families residing in the mansions.

The Greek gardens were laid out with lawns, groves, thickets and avenues; while fountains fed meandering rivulets. Beds of asphodel, hyacinth and violets, roses, myrtles and pomegranates, diversified the scene, or wafted perfume to the senses. Here Athenian taste and luxury displayed itself. The Greek as a farmer or city gentleman, is not the Greek of classical associations; and yet, perhaps, just in these relations, he was most intensely Greek.

Homer gives a lively sketch of the primitive country life. Hesiod was a Bœotian farmer, and gives precepts which seem to have been drawn from his own experience, concerning lucky and unlucky days, weather, &c. The early Greek philosophers carefully observed the phenomena of the heavens, and were skilled in the arts of the seasons. The habits of animals, the properties of soils and their adaptation to different kinds of crops, were matters of which they knew. Wagons, carts,

plows and harrows were manufactured on the farm or in its vicinity, and the wood used was chosen with care. Corn was ground in a mortar with a pestle, and in later times in a mill. The list of other implements, such as scythes, saws, spades, rakes, &c., could hardly be extended now. The use of guano, sea-weed, and commoner substances, was perfectly understood. Land was allowed to recover its strength by lying fallow. Scarecrows were set up in the fields to scare away birds; though a "spell" was also used, viz:—having caught a toad they carried him around the field by night alive, and then put him in a jar, sealed him up, and buried him in the middle of the ground; when, this representative enemy being buried, the seed was supposed to be safe from enemies. The value of hay was well understood. The time for mowing was carefully determined, and the hayricks made with due precautions against both damp and spontaneous combustion. When the time of harvest came, the laborers of Athens ranged themselves round the agora and waited to be employed by the farmers.

The grain was separated from the straw by horses, oxen and mules, in a circular threshing floor, usually placed on an eminence in the open field. A pole was set up in the centre, and the cattle fastened to it by a rope reaching to the circumference. They moved round it until they were brought up at the centre by the winding up of the rope, and were then turned in the opposite direction till it was unwound. Sometimes a rude threshing machine, toothed with stones or iron, or a flail, was employed. In Homer's time a winnowing machine was used also. When the harvest was completed, the event was celebrated by a festival in honor of Demeter and Dionysius, at which cakes and fruit alone were offered.

The culture of the vine was a subject of importance, and the selection of a spot for a vineyard, the direction of its exposure, the effects of climate and of particular winds, were sedulously considered. Hedging, weeding, setting out slips, the treatment of the vine were all described by writers before the time of Virgil. The appearance of a vineyard, composed of tree-climbing vines, is beautifully described by Mr. St. John, the trees being ash, poplar, maple or elm, and planted one row above another on a declivity, with the lower branches cut off; the vine climbed thirty to sixty feet, according to the depth of the soil, and running out on the high branches arched from tree to tree, or on bridges of reeds.

A series of lofty arches was thus created, beneath which the breezes could freely play, abundant currents of pure air being regarded as no less essential than constant sunshine to the perfect maturing of the grape. The fruit was kept frest or made into raisins. It would be endless to attempt a description of all the fruits and the methods of raising them. Cider and perry were made from apples and pears. The olive was perhaps most extensively raised, as its oil was used for lights and as the basis of cookery.

The farm yards had their noisy tenants. Geese and ducks often waddled into the kitchen, in one corner of which might be heard the comforting sounds of the occupant of the pig-stye. The art of enlarging the goose's liver for epicures was well known both to Greek and Egyptians. Henerys, furnished with roosts, were attached to the kitchen so as to received its smoke, which was supposed to be agreeable to barndoor fowls. Pigeons, peacocks, pheasants, guinea-hens, &c., were to be found at the establishments of wealthier farmers. The laboring animals were much the same as now, except that the horse was comparatively more uncommon in the working of the farm, being reserved for the chase, war, &c. The arrangements of a Greek dairy were much like ours, and though butter was little used in the classical ages, yet cheese was universally eaten, generally while fresh and soft. Milk was sold in the Grecian markets by women, and it frequently reached the customer in the shape of milk and water. A method used for detecting the cheat, was to drop a little on the thumb-nail; if the milk was pure, it would remain in its place,—if not it would flow away.

SOIL—TEMPERING THE SOIL.

The character of the soil, by which we mean its capacity to afford a habitation to the plant appropriate to it, and at the same time to furnish the required aliment, is a matter, as all farmers must see, of the first importance. What are the requisites to a soil of this character? and how shall they be supplied, when wanting?

The soil should be such as to afford sufficient moisture to the roots and to admit the air to penetrate it freely. The soil consists of decayed vegetable matter, sometimes mixed with particles of rock reduced to fine pieces by the action of the atmosphere and of water, and sometimes by the roots of plants. It is unnecessary to describe the different kinds of soils in regard to adaptation to this object of supplying moisture; second, it should afford a supply of carbonic acid. This is furnished by the decay of vegetable matter, or by absorption from the atmosphere. This faculty of absorption is assisted by mixing charcoal, gypsum, or other matters having a great absorbing power. Charcoal has a great power of absorbing this substance, and it has been found that plants will grow more luxuriantly in this than in any other soil, if well supplied with water. The benefit of the charcoal or gypsum is only as a medium of absorption; the fertilization is derived from the water, which is converted by the plant itself, in its vegetable laboratory, into carbonic acid. Third, the soil should be capable of furnishing a supply of ammonia to the roots. This also is much assisted by gypsum and charcoal, which absorb it from the atmosphere. The usual mode is by addition of animal matter from the stable. Nitrogen imparts ammonia to the plant, and it is to this last that the nutritive power of the cereal grains and esculent vegetables is owing.

Fourth, it should contain those mineral ingredients which are necessary to the growth of plants. These, if wanting, must be supplied. The usual mode of doing this is by the mixture of other soils. This is also advantageously resorted to when the soil is too little or too much retentive of moisture

in consequence of being too loose or sandy or calcareous, or too compact and stiff. This is called tempering the soil. When a soil is too loose and porous, or too stiff, the mixture of the opposite kind in just proportions will bring it to a more suitable condition. In this way a body is given to those lands that are deficient of it, and those which are too heavy and tenacious are made more light and loose. This process brings no nutriment to the plant directly, but only mediately by attaining a retentive power in the right degree, and thus furnishing nutriment by a proper supply of water; and it also acts favorably on the health and quality of the plant. Irrigation is the most beneficial mode of applying water to plants, for the reason that in running over the ground it takes up and holds in solution the mineral matters required.

For the New England Farmer.

MANURES.

Many a farmer possessed of acres of cultivated land, which in its present state is a source of neither pleasure or profit, is convinced of the necessity of increasing its productiveness, but is in the dark as to *how* the work is to be done.

He may be unable to purchase specific manures; or from the many in general use, not know which to select. Or—as many have done—he may have erred in applying foreign fertilizers. Perhaps gypsum, sown on low, wet land, proved less valuable than sand from the wayside; and guano, placed in the hill, killed the young corn.

Now, to all who, in the use of specific manures, have failed to reap the anticipated reward, we beg leave to speak of a way, in which your farms can be made more productive, and that, too, at a very trifling expense. And the expenditure is an item which should enter the account of every farmer, for economy is essential to prosperity.

And first—*your-barn-yard*, in which, perhaps, for want of a cellar, all your manure is thrown to be dried by the sun, and drenched by the rain, till little is left, except the worthless vegetable fibre, with which to dress your soil. Cannot something be done here? As it is, it may be the highway or the brook receive the liquid manure, for which your fields are languishing. And is not the air, for rods around, surcharged with ammonia, which conduces to the destruction of animal life, instead of contributing to the support of the vegetable kingdom?

Why not drain that unsightly bog, or dig the turf from beside that wall, where brakes and briars grow, deforming the whole field; and cart the sods and muck to your yard? The muck and loam may be of little worth if spread upon your land in their crude state; but incorporate them with your manure heap, and they become valuable by absorbing what now escapes.

And your *pig-stye!* Is it not a fit companion for the barn-yard? Is it not often flooded with water? Does not your hog, for want of better employment, undermine his fence, and break forth from his enclosure, to the serious injury of the garden or cornfield?

Give your hog plenty of leaves, potato-tops, and grass sods, and his labor will be turned to some account. He will earn you from ten to twenty dollars in the course of the season, and in the fall fill just as large a barrel, as if he had spent his life in idleness or mischief.

But perhaps you say, "the substances above spoken of, as materials from which to manufacture manure, are worthless,—that spread upon the field they will not increase the crop." In their present or natural state they may be indifferent fertilizers; and so is hay, before eaten by stock, and wood, before reduced to ashes. M.

Chester, April 18, 1853.

For the New England Farmer.

THE CURRANT BORER.

MR. EDITOR:—There is an enemy of the horticulturist which is very destructive in these parts, and as I have reason to believe, is not unknown elsewhere, although I have not met with a notice of it in your valued periodical. I allude to an insect known as the currant borer. Forty years ago, there were luxuriant crops of most excellent currants produced in this neighborhood, almost spontaneously. At the present day they cannot be obtained of good quality by any degree of trouble and attention. This change has been brought about by the borer, a worm or rather maggot, very similar in size and appearance to the apple worm, which also has long been destructive to the produce of our orchards. For neither of these pests is any available remedy known; nor is it probable that any will be discovered, until the nature of the insects be sufficiently understood.

Possibly some of your contributors may be able to impart the requisite knowledge of their origin, and of their habits during the several seasons of the year. Independently of its effects, the currant worm is only known to me by observation, when pruning the bushes in the spring. I find the stems and branches hollow, the pith being destroyed, and a black powder occupying its place; while at the termination of the hollow part, and sometimes at each end of the tube, a white maggot, of half or three-quarters of an inch in length, occupies the place of the pith that has been consumed.—There is generally perceptible a small puncture in some part of the twig, by which it would appear the worm made its entrance; but whether it eventually drops into the ground, or undergoes its transformation into a fly within the twig, or what description of fly it becomes, are points that have not been ascertained, and which it is evident must be determined in order that a remedy may be applied with reasonable hope of success.

The same uncertainty rests upon the proceedings of the apple worm. Impressed with the idea that the worms, on their exit from the apple, entered the earth, I caused sea-weed to be laid under the trees, early in the summer, to the depth of a foot, and extended it over all the ground near the trees, and allowed it to remain until after the bloom was well over; supposing that if the flies were not by these means destroyed, their maturity would be delayed, so that they would not rise out of the ground until the time for mischief should be passed. However, little or no effect was visible from this proceeding. Wormy apples were as plentiful as in former seasons. I know not what to think of the failure in this matter. It can hardly be that the worms become chrysalids

in the bark of the trees. They would surely be detected on close inspection. And if they retire into the ground, it is difficult to imagine that they would not be destroyed, or at least delayed in their transformation, by the overlying depth of seaweed.

Allow me to bring to your notice another subject which I have not seen adverted to in the columns of the *Farmer*. The advantage of applying lime to cultivated land has often been discussed; but when lime is naturally superabundant in the soil, what then is the corrective? In this quarter there is land apparently formed of decomposed limestone. On removing the flat limestones lying on the surface, a black mould is seen underneath, and large collections of similar mould exist, resembling the richest soil in appearance, but which is, in fact, perfectly sterile. Not a grass or weed of any kind grows in it. A mass of black dust in summer, and mud in winter, it remains unchanged for years. It is to be presumed that similar decomposed limestone soils exist elsewhere, but I have not met with a notice of them, nor with any information bearing on the mode of treatment proper for land of this description.

If any of your correspondents may be induced to throw light upon the subjects of this communication, it will be satisfactory to your old subscriber and constant reader, FAR EAST.

April 8, 1853.

P. S. Since writing the above, I have examined the old stems of currant bushes which have been subjected in former years to the inroads of the borer; and from certain indications observed, I am of opinion that the insects accomplish their changes in the wood; a circumstance that renders an effectual attack upon them a matter of difficulty. They might be more easily reached in the ground. It is probable that they are not to be annoyed or kept at a distance by the use of odoriforous substances; for the strong smelling black currant is liable to their invasions equally with the red and white kinds.

REMARKS.—There are important inquiries above, which we hope will receive the attention of our correspondents who are informed on the subjects.

For the New England Farmer.

TRANSACTIONS OF THE FRANKLIN COUNTY SOCIETY.

This youngest of the sisters of the Massachusetts family comes forth, gallanted by Prof. Mapes and guided by President Cushman, in an array calculated to arrest the attention, and secure the admiration of all she meets. If we do not mistake, she has made a distinct impression. Considering the material on which she operated, she has done much. Take, for instance, the plowing field, on which were only seven teams, and see the work reported—and sensibly reported too. The remarks on *deep plowing* and *thorough pulverization of the soil*, are my sentiments. They cannot be too oft repeated. The humor let off in view of the kinds exhibited, by one who knows how to feather his own nest as well as most other politicians, shows that the rancor of party finds no place at Agricultural Shows. This is as it should be. Fortunate is it, that there is one field on which men of every grade, from the *surpliced parson* to the *frocked plowman*, can meet and greet on an equality. If no other benefit accrued from these shows, this alone would sanctify them. I admire the arrangement of this pamphlet, and the comprehensive intelligence it contains. I like to know who the farmers of Franklin are, and who countenance this employment. I would respectfully suggest whether the ladies of the county could not be brought in to take a more active part, with much benefit. If I rightly remember, in the account published of the Hampshire Society the last year, every man had his mate; and judging from what I saw and know of them, they were not the least interesting part of the show. The truth is, whatever the ladies take hold of, must go-ahead. Charming creatures, God bless them.

April 27, 1853.

For the New England Farmer.

ANTS AND APHIDES.

MR. BROWN:—Sir—I observe that "Reviewer," in the April number, has called for remarks on ants and aphides, and finding myself fairly committed, I feel too proud to retreat, and yet half afraid to proceed; but I will to my subject.

My childhood was spent in a very retired place in the country, where children know very little of the costly and artificial amusements of the city. A few neighboring children, with myself, used to amuse ourselves by turning over small stones that had become partly imbedded in the turf by the side of the road, to see the ants under them carry their young down into their subterranean abodes. As I increased in years, ants became more and more subjects of interest, as they were continually pointed to, as patterns of industry; and yet there were so many obstacles in the way, that I made but little progress in their *real* history.

Some sixteen years ago, one pleasant spring day, I was attending to the dressing of my flower borders, and noticing that some house-leeks that I had growing in a terrace wall had been thrown out of place by the freezing and thawing of the previous winter, I went to arrange them, and on removing a stone, I saw a number of ants seize something in their mouths, and run about in great confusion. My first thoughts were, that they were protecting their young; the next was, it was quite too early in the season for them to have young, which induced me to examine closer, when I discovered that the objects of their solicitude were large plant lice, that appeared to be in a torpid state. I was not much surprised at what I saw, for it is generally believed that ants lay up food for the winter; and knowing many species to be carniverous, or nearly so, I supposed the aphis were for food. But I related to my husband what I had seen. He appeared to think that they had a different object in view; so he took from his library the writings of HUBER, and translated for me his account of the ants of Switzerland, with which I was exceedingly interested, and which opened for me a new field for observation.

HUBER asserts that ants feed upon the honey-dew that exudes from the aphis, and are therefore induced to take good care of them, and that they carry them down into their burrows in autumn, where the aphis become torpid, and remain so during the winter, and that the ants expose them

gradually to the genial air of spring until they have revived into life, and then place them upon leaves or roots, where they will find sap suitable for their nourishment.

Since the above related incident occurred, it has been no uncommon thing for me to see ants attending upon aphis. When I have pulled up radishes or young beets in the garden, I have frequently found a cluster of small aphis upon the roots, and seen small ants take them in their mouths, and hasten to a place of safety, and appear quite as anxious to save their property as their lives. I have never seen an ant take an aphis from its family circle and place it upon a leaf by itself to found a new colony; and yet I am as certain that they do do it, as if I had been an eye-witness of the fact. I have frequently seen on my woodbines a single apis, on a fair leaf, half a foot above its fellows, and in two days after that, there would be a cluster of young ones around it, that could hardly be covered with a ten cent piece; the aphis could hardly have got away from its companions without assistance, for they are not travellers until they have wings; and they seldom have those until autumn.

In conclusion, I have little to say in favor of ants. I cannot point to any good deed they do, beyond their untiring industry. Of their evil deeds, they pile up the earth and make it unsightly and troublesome, and furiously attack those that disturb them, and almost every housekeeper is more or less annoyed with them among the eatables in her pantries and closets; they bite and mutilate our choicest and sweetest fruits, besides being extensive breeders of aphides. Some naturalists say that different clans of the same species carry on furious and exterminating wars with each other, and that many of them are slave-holders, and rob the neighboring tribes of their servants.

I have told my story, and as "dominion has been given to man, over every creeping thing that creepeth upon the earth," I leave the case for the gentlemen to decide, whether ants are worthy of life or not.

Of the aphis, I have no knowledge to impart beyond what was written by my late husband eight years ago. I therefore send the following extract from an address delivered by the late Judge DARLING before the Agricultural and Horticultural Societies of New Haven county, and city, in 1845.

"The plant louse, (aphis) is to be seen on the underside of the leaves of almost every species of plant. And there is appropriated to almost every species of plant its distinct species of aphis. Thus the cabbage-louse is wholly unlike that of the peach, which again is quite different from that of the plum. They exist of every color, green, black, blue, brick red, brown and crimson,—of all sizes, from that of a pea-bug to that of a mite, just visible, naked, or covered with meal or wool. Trees are not often killed by them, but they are checked in their growth, and made to become crooked and deformed. When the plant-lice fasten themselves upon the roots of herbaceous plants, as some species do, they prove fatal. The ladies may have observed their China asters, in particular, to turn yellow, stop growing, and finally perish without any visible cause. The grower of watermelons, too, sees the leaves of his vines become smooth and glassy, and after a few days die. This is caused by the *aphis* on the roots of the aster and melon. The powers of increase given to this insect cannot be contemplated without amazement. Reaumur, from the most careful observation, estimated that a single aphis might be the progenitor of near six thousand millions in one summer.

"Well might Dr. Darwin fear that 'their countless numbers might in process of time destroy the vegetable world.' And yet perhaps there is no insect so completely in our power as this. We have only to put in practice the great rule of farmers, *to do everything at the proper time*, and we can protect our plants wholly from this insect with little labor. You see to-day, a plant-louse upon the leaf of a cherry tree; you neglect to destroy it, and to-morrow, there are 25—in 22 days more, there are 50,000, and in one day after that, there are more than 100,000. A touch of your finger on the first day of the month, may save you therefore the labor of a week with soap-suds and syrenges at the end of the month. *Destroy the first that come in the spring, and the business of killing plant-lice is finished for the season.* We are informed by Huber, that the ants of Switzerland take into their keeping several species of the plant-louse, which they tend with the utmost care for the sake of their honey, as a dairyman tends his cows for their milk. We have evidence that the small brown ants, which you see coursing up and down the stems of cherry and peach trees with great animation, take charge of some of our plant-lice in a similar manner, particularly those on the cherry tree, and those on roots. Accordingly the aphis generally are first to be found very near to the ground. There search them out and destroy them. If unfortunately they escape your attention, till they have multiplied to a considerable extent, you may still master them with proper applications. One of the best of these for trees, is a *strong solution of whale oil soap. The ends of the branches may be bent over and held in the soap-water about a fourth of a minute.* A small paint brush, dipped in the wash, may be used in some cases, especially on cabbages, and on the branches of pear trees infested with that species, which collect about the buds and produces a black rust. Common soap-suds, warm and strong, will serve to kill the aphis, but it is apt to kill the leaves also. A decoction of tobacco is a sure destroyer of the aphis. It cannot be used upon leaves, but nothing perhaps is better to pour around the roots of plants, when those are infested by the insect. Ladies may call upon their friends who use cigars, to *puff the smoke upon their rose-bushes*, and thus 'do the State some service.' Several insects are appointed by Providence to assist us in keeping the aphis in check. Two only will be noticed at present. One is the speckled bug, about the size and shape of a half-pea, called by children, lady-bird, (Coccinella.) The other is a beautiful green fly, (Chrysopa *perla*,) with eyes of gold and wings of lace, but fetid almost as the squash bug. The eggs of this fly are hung by threads, about a quarter of an inch long, to the underside of leaves. You will be careful not to harm those useful insects." Very respectfully yours,

MRS. NOYES DARLING.

New Haven, Ct., April 15, 1853.

TO CORRESPONDENTS.—One more word to our valued correspondents, to make their articles brief. We have twenty communications on hand now,

some of them from gentlemen of large experience, and who are also excellent writers, for which it is difficult to find room. The object of the writer is partially defeated, in writing long articles, as a long article is seldom copied, while one of three pages, written well, would, perhaps, pass through half the agricultural papers in the country. Be brief and comprehensive. There is no subject which can be fully discussed in a single article of suitable length for a newspaper.

FARMER PENNYWISE AND FARMER POUNDWISE.

There is a Farmer Pennywise with whom I am acquainted, who will occasionally raise a good heifer, steer or colt, for his neighbors who keep good breeds, and he is by accident occasionally benefited thereby. When he has such an animal in his flock, he is apparently uneasy until it is disposed of; and after selling such an animal, a heifer for instance, you may hear something like the following:

"Well, my dear, I have sold the big heifer for fifteen dollars; is that not a good price for a heifer of her age?"

"Good price, indeed!" his wife would reply, "you had better have sold two of them cat-hammed, crooked legged, scrawny things that you always keep for cows. The reason that our cattle always look so bad, and that we sell so little butter and cheese is, that you always sell the best heifers."

Poor woman! I pity her; her pride and ambition are injured, her children and self in rags, because her native industry and economy are cramped by the foolish and niggardly policy of her husband.

The picture is reversed in farmer Poundwise, who always keeps his best animals until full grown; then selecting his best breeders for his own use, he sells the rest. If he has a good young horse, he will say that he will make a fine team horse; a mare, she will make a fine brood mare.

"And what will you do with that?" says his neighbor, pointing to an ordinary animal.

"Between you and I," says he, "I shall sell that colt the first chance. Such an animal spoils the looks of all the rest, and will not pay for his keeping."

Thus he will sell his poor steers, heifers, sheep and pigs at the first offer. If not sold, he would fatten those that would pay the expense, and give away those that would not. Not pay the expense of fattening! Are there any cattle, sheep or hogs that will not pay the expense of fattening?—Reader, take some of each—of the real Pharaoh breed—feed them until fat; keep an exact account of the expenses, and you can answer this question yourself. In this way Farmer Poundwise always has valuable stock; his steers are ready sale, and command a good price; his horses are the best in the neighborhood, and the first to be looked at by purchasers. So with all the animals he raises. Pennywise, on the contrary, is thronged with an ill-shaped, worthless stock, that none will buy or pay the expense of raising; which are continually eating out his substance and making no return. Thus Pennywise drags on a miserable life in the road to ruin, while Poundwise moves easily and happily along in the road to wealth.—*Maine Farmer.*

For the New England Farmer

FARMING IMPLEMENTS AND MACHINES.

Mr. Editor:—I have noticed for the last twelve years that one of the greatest drawbacks to improved farming is a want of good implements and machines. Even those farmers who go in for improvements, and are known as friends to "new things," and are opposed to this "old fogyism," many of them are sadly in want of good tools to carry on farming with. This arises more from a careless indifference and a want of knowledge of what good tools are worth over poor, inferior ones, than it does from other causes. I say now what I have often said before, that I have seen more "slack farming" in the last ten years directly from this cause alone than from all other causes put together. Poor tools and indifferent implements beget careless habits in farmers, whereas improved farming implements give new life, energy and activity, and enable the farmer to go on and strive to do his work in the best manner.—There is a class of farmers, when they find out the real difference between good tools and bad ones, will immediately lay aside the old ones, and take the new ones. There is still another class of farmers who are well convinced of the importance of having good tools, because they have seen the good effects of them in their neighbor's fields. And yet they go on, from year to year, using the same tools, and why, simply, because they love their money better than they do good tools. So the consequence is, they keep their money, or spend it for something else, and let the tools go.

For the last six or eight years I have used two of Prouty's plows, the old Sod C pattern, and No. 5½, self-sharpening. Both of these plows do good work, as well as many of their new patterns, which they now make. Ruggles, Nourse, Mason & Co. also make a variety of good plows of different patterns, which are in extensive use, some of which are hard to beat. There are also many other good plow-makers in the country. What the farmers want is to get a good plow or plows of some kind that will do good work. The "subsoil plow" is another implement which should be used much more than it is by farmers. All soils, in the course of a six years' cultivation, will be more or less benefited by subsoiling.

The best harrow that I have ever used is "Geddes' Hinge Harrow," with thirty teeth. This harrow works well, cuts the ground up fine, and as it is made in the triangle form, it works much easier than the square harrow with the same number of teeth, and it is not as liable to clog up. A single yoke of cattle can draw the harrow on any soil with ease, as it does not lug like the old catch harrows.

The "horse rake" is another important farm implement, and one of the greatest labor-saving machines in use on the farm. It is astonishing now to see how many farmers still rake hay by hand, preferring, as it would seem, to pay a dollar or more a day for hand rakers in preference to seven or eight dollars for a horse rake, which will pay for itself twice over in one season to any far-

mer who has got twenty-five or thirty tons of hay to get. In all smooth meadows, and those with but few stone, we prefer the "revolving rake," as it rakes easier, and rakes the hay cleaner from dirt and leaves than the spring-tooth rake. Another good implement is the large gleaning rake, with thirty teeth. This rake is made on purpose to rake after the cart; as it is made light and stiff, one hand can do more work and easier than two or even three hands in a windy time, with only the common hand rake.

In this manner I might go on, naming the different varieties of improved farming implements which are in use by many farmers. But it is not necessary to name them separately, as all thorough farmers will be ready to adopt them when wanted. I might name the "corn-sheller" as a great saving of labor; all farmers raise more or less corn, and to shell out a bushel in four or five minutes, is a saving of time. The one I have used for six or seven years is "Burall's Iron Sheller;" this machine separates the corn from the cobs, letting the corn into the half-bushel, while the cobs are pushed out of a hole in the side. How any farmer, after using one of these shellers for an hour or two, can go back and set down on a shovel, or astride of an old frying-pan handle, to shell corn, is more than I can imagine. And yet there are many farmers to our knowledge who go on in this way now, and probably will for a long time to come. That they have not much idea of improvement is true; what they may come to hereafter, I cannot say. But one thing is certain, that if they can make any improvements at all, they must begin at some periods in their lives.—When farmers learn to make use of all the means in their reach for farm improvements, we then shall see something worthy of their name and station. Yours, &c., L. DURAND.

Derby, Conn., April 19, 1853.

For the New England Farmer.

THE STATE FARM.

MR. EDITOR:—At the last and concluding Legislative Agricultural Meeting, among other suggestions for the advancement of Agricultural Science, that of establishing a *model* farm or farms was adverted to by some of the speakers. That a model farm, under the patronage of the State, might be made to greatly aid the interests of Agriculture, no one, I think, would for a moment doubt,—provided it was reared and carried on in such a manner as to render it *truly a model worthy of being patterned after* by every farmer in the State. In addition to its being a *model* farm, it should also have an experimental department. To start such an establishment, the State need not purchase more land, as it already owns a farm in Westboro' in connexion with the State Reform School, of sufficient dimensions to commence with. This farm ought long before now to have presented, at least, an approximation to a *model farm*; but the thing seems never to have been thought of; although this establishment possesses nearly all the elements necessary for the successful management of such a farm; and that, too, without any additional expense in maintaining the institution; but on the contrary, an improved system of husbandry, would, in the opinion of many persons, materially lessen its present yearly demands upon the State treasury. This farm contains, I believe, between two and three hundred acres of various soils,—favorably located, which, with the adequate supply of labor of the boys, together with an official Agricultural force, who if not already, might in future be selected with reference to their proper agricultural attainments, affords such an economic opportunity for the establishment of a model and experimental form, that it is to be wondered at that it has not (at least to my knowledge) been suggested before. Believing such an establishment would greatly aid the interests of agriculture, and believing also that here is a most favorable opportunity to try the experiment at no extra cost to the State, I have ventured thus to suggest my ideas upon the subject to you, Mr. Editor, and to the consideration of your numerous readers. I see no good reasons why the State Board of Agriculture, together with the trustees of this institution, if clothed with the requisite authority by the "powers that be," could not cooperate in bringing about this needed transformation in this already State farm. What say you, Mr. Editor, to these suggestions? If you think favorably of them, give us the weight of your influence, and the thing is done—perhaps.

T. A. S.

Westboro', April, 1853.

REMARKS.—"T. A. S." has given above valuable and timely suggestions, and we see no reason why they may not be acted upon with benefit to all concerned. At any rate, his remarks prove that he is interested in the subject, and has taken the true course to make others so. Accomplish this, friend "S.," and the "powers that be" will come, up to the work. Legislators, and other associated deliberative bodies of men, are usually a little behind the masses.

INTERESTING TO FARMERS.—The *N. Y. Express* makes some suggestions in connection with a reference to the material advance in the prices of beef cattle, which are worthy the consideration of farmers and farmers' clubs. The reason for this advance is found in the fact that the graziers in the northern Illinois region, who have heretofore been among the most extensive contributors to the great cattle markets of New York, Philadelphia, Baltimore and Boston, now drive their herds across the plains to California, where very much higher rates are realized. The pasturage along the route is good, and the cattle arrive in excellent condition, and find a ready market. The cattle dealers of Ohio are turning their attention in the same direction, and in some instances have recalled their droves from their journey to New York, to be sent across the plains. New York requires some five or six millions worth of animal food in the course of the year, and the *Express* urges that the only way to meet the threatened deficiency, is for the agriculturists nearer home to bestow more attention on the raising of cattle. Another drain upon the beef market is made by the very extensive shipments to Australia. Immense quantities of beef have been and are now being packed and shipped for that market. In view of these facts, there cannot be a doubt that the raising of beef will be a much more profitable business than it has been for years past.

SPANISH MERINO EWES.

We have been favored by GEO. CAMPBELL, Esq., of West Westminster, Vt., with a group of his beautiful sheep, which we take pleasure in laying before the reader. The raising of wool, to say nothing of the good mutton, has got to be an important branch of business in various portions of the country. The abundance and cheapness of cotton cloth are among the rich blessings of our existence. It is a great civilizer. And now *wool*, in various shapes, is becoming common among all classes of our people. In the way of coarse carpeting, its use is a matter of economy with the poor; it is manufactured into soft, light and very warm waddings, and in the sleighs and carriages, is taking the place of the buffalo robes. It is also made into under-shirts, and in our variable climate, is conducive to health.

But MR. CAMPBELL will explain the group himself.

The group of ewes, of which I send you a cut, is of my old *Spanish stock*, which are pure descendants from the importations of JARVIS and HUMPHREY. They are of fair size and well proportioned, with thick, long, fine wool, which is sufficiently oily to produce a natural dark surface.—According to their size, they produce more wool than the French Merinos.

The whole flock of this breed sheared an average of 5¼ lbs. of well washed wool last season, which was sold at 52½ cts. per. lb. I have just sheared my two year old ewes of this stock, without washing. Their fleeces of only eleven months growth, average a trifle over 8 lbs. Many of them are as white, and appear to be almost as clean, as washed wool.

Their wool will compare, as to quality, with any Merinos in Vermont, the Siberians excepted. I do not hesitate to give it as my opinion, that more fine wool can be grown from the same amount of keeping, than of the coarser grades.

Many of the sheep in the country called Merinos, are not worthy of the appellation, and those wishing to purchase a pure article cannot be too cautious of whom they purchase.

GEO. CAMPBELL.

West Westminster, April 18, 1853.

GRAFTING CLOTH.—We have been using the past week the grafting cloth recommended last year by Col. LITTLE, of Bangor, and find it a most admirable article for grafting or covering wounds made by pruning. It is easily made and very convenient.

6 lbs. beeswax.
1 lb. rosin.
1 pint linseed oil.

This quantity, spread evenly on cotton cloth, would be sufficient for several farms for the year.

For the New England Farmer.

DISSOLVING BONES.

MR. BROWN:—In the last *Farmer* (monthly) you gave some directions for dissolving bones in sulphuric acid. As I have made three unsuccessful trials, and do not care to "give it up so," will you give us a little more definite information on the subject.

How finely should the bones be broken?

What is the best and cheapest way of crushing them? In the trials I made I found the labor of breaking them quite considerable. (*a.*)

Are the bones entirely dissolved? (*b.*) I have not succeeded in dissolving more than ⅓ to ¼ of them.

Will as good results be obtained when but few pounds of bones are used, as when the quantity is 100 or more? (*c.*)

Is it essential that the bulk of the water should be just 1½ times the bulk of the acid? (*d.*) I find different writers differ in this particular.

What is the most convenient method of using the dissolved bones, and how large a quantity can safely be applied? (*e.*) A SUBSCRIBER.

REMARKS.—(*a.*) They should be first broken into coarse pieces and then ground in a mill.

(*b.*) They will be if the bones are ground.

(*c.*) The difference in quantity will probably have no material effect on the process.

(*d.*) If the bones, when ground, are not converted into a soft paste-like substance by the operation, add a little more acid.

(*e.*) The bone manure may be used in any way in which you use other manures; like all other fertilizers, keep it covered up. There are so many varying circumstances, that no rule can be given for its application. Professor Low states that some of the English farmers were in the habit of applying 60 or 70 bushels to the acre; while here 10 or 15 bushels is considered a good dressing. But the quantity required must depend on the condition of the land. See Farmers' Encyclopedia, article, "Bones," and BROWNE'S Muck Book.

NEW SEEDLING GRAPE.

C. M. Hovey states in his *Magazine of Horticulture*, that a new seedling grape has been produced from a native vine, fully equal to the Isabella, and ripening at least *one month* earlier than that variety. He received specimens of the fruit as early as the middle of September, which were the very last of the crop. The berries were round, black, and covered with a dense bloom; bunches as large as those of the Isabella; skin thin; flesh tender, with scarcely any pulp, "exceedingly sweet and delicious." The vine is hardy, vigorous and productive. The name of the originator is not given, as it would, if known, subject him to a flood of orders. The vine will probably be secured in the hands of a few, and in due time be offered to the public, who will of course make some allowance for the charms which novelty throws around every new horticultural production. Should this prove nearly so valuable as is hoped, and the same result be verified of Dr. Valk's new seedling, and Longworth's newly discovered hardy foreigner, we shall soon have quite an addition to our list of valuable varieties.

REMARKS.—The originator of the grape mentioned above presented us a liberal dish of the fruit last autumn, and we found it scarcely inferior to the best Isabella. It ripens, as stated, in the open air, and before the usual heavy frosts. We hope it will be extensively propagated, and afford a grape that may be depended upon in all parts of New England.

For the New England Farmer.

SHELL LIME.

MR. EDITOR:—On reading the article on this subject, in the last number of the *New England Farmer*, I noticed a slight error or deviation from the meaning, which it was intended to convey. The error related to the quantity of common salt. *One bushel of common salt* is designed to form the result. The recipe referred to, states *four barrels of shell lime, one bushel of common salt, and one cord of swamp mud or peat.* Another recipe, which I have noticed, in order to form a similar result, is the following:—Take *one barrel of common quick lime, one bushel of common salt, and one cord of peat or muck.* The salt is to be dissolved in water; with this solution, the lime is to be slaked, and this compound is to be mixed with the peat. These two formulas are prepared in the same way and produce a similar result. The explanation may be regarded as correctly stated. Lime, slaked in this way, results in the formation of caustic soda, which is highly active when combined with the other substances. The soda, the elements of air and water, viz: oxygen, hydrogen and nitrogen, and the geine as found in the peat, form, in their ultimate disposal, a compost rich in nitrogenous matter, largely contributing to the formation and growth of plants; while a reaction is made upon the elements of the soil, which will be in favor of subsequent vegetation. These effects and changes can be demonstrated, by the well known actions of chemical science, and can be proved by actual fact. These processes are not only richly remunerative to the practical farmer, but are also highly beautiful and instructive to the agricultural chemist.

There is latitude, however, in the use of these and other materials. The compound noticed may be mixed with the droppings of the stall and peat. Plaster and ashes may be added. Or shell lime or common quick lime, plaster, ashes and common salt, may be mixed with the droppings of the stall and peat with sand or loam, until at the close of the year, or at the return of April and May, a pile of compost may be found, five, six or seven times greater in amount than the droppings of his stock. The elements will be steadily and untiringly at work. Man and his domestic animals may stop to refresh themselves and may be preparing for fresh efforts; the sun may retire beneath the horizon and leave the earth to be shrouded in darkness; all nature may be hushed into silence and repose, and man himself may be wrapped in the slumbers of the night; but these elements are working out their mighty changes and yielding a sure reward to the care, industry and economy of the husband-

man, manifesting the handy workmanship of Providence and her readiness to minister to the wants of man. The quantum realized in these preparations at the time of use, will depend upon the amount of materials added and the skill of the actor. BOWEN BARKER.

Hanson, April 18, 1853.

For the New England Farmer.

SPARE THE SWEET SONGSTERS.

MR. EDITOR:—Dear Sir—A few short weeks ago, the low, plaintive note of the blue-bird was borne to our ears on the morning gales of spring. And it gladdened our hearts; for it was a harbinger of the return of sweet-scented winds and sunnier days, and its arrival was like the return of an old and valued friend.

A few days later, the beautiful red-breast had returned to its summer haunts. But a foe awaited him, and scarce had he commenced to cheer us with his sweet song, ere the sharp report of a gun is heard, and the winged messenger falls from his airy height, fluttering in the last agonies of death.

Oh! *who* caused its death? 'Twas a *member* of the self-styled *human* family—*inhuman* would be the more fitting name. I grieve to say it—but there is a sad propensity among the boys to shoot the innocent birds—those that do no harm, and much, very much good. Some do it for mere sport—others, because *others* do. Some wish to exhibit their prowess, and think people will call them manly and courageous. But, far from it. It betokens a coarse, evil-dispositioned, lawless character.

'Twas Fast-day that I saw two lads out hunting the pretty robins, and when asked why they killed them, one returned for answer—"O, to eat." To eat! yet they were the sons of wealthy fathers. My advice to those fathers is, to compel or persuade their dainty sons to stay at home on the holidays, and feast on less dainty, but more substantial food. Our Creator made all manner of insects; but He also provided us with birds, to keep them from increasing too fast; and if farmers permit their sons to kill them, they must not complain, though worms cut down their corn, and bugs eat up their vines; the borers construct canals and railroads in the trunks, and caterpillars weave silken houses in the tops of their trees. No; not even if worms and insects approach their worthy selves with hostile intentions. And you, young readers of the *Farmer*, did you never walk forth to admire the beauty of Nature, when the sweet song of the birds formed its greatest attractions. Oh! spare our sweet songsters, and they will repay you, by singing a song sweeter than ever came from mortal lips. C. P. B.

Sutton, April 16*th*, 1853.

REMARKS.—We wish there were a general police all over New England on "Fast" and "Election Days," to prevent people from destroying the birds, or, if they refused to desist, to enforce the penalties of the law on them. A friend living in Danvers has informed us that he has spent many an election day in traversing the fields and shady lanes to prevent boys from killing the birds. His praise should be on every lip and his example followed by others.

VALUABLE EXTRACTS.

Some notice has already been made of the *Transactions of the Franklin County Society* for the year 1852; but we turn to them again with pleasure, to make extracts from the valuable address by Prof. MAPES at the annual exhibition in September.

The reports of this gathering show—as have many others—that it was not an exhibition, only, of the grosser elements, the oxen, the horses, cows, vegetables and fruits, but that it was made an intellectual occasion, where the mind and morals were cultivated, as well as the fruits of the earth. Beside the address to which we shall chiefly turn our attention, there were others, which would grace any of our halls of learning, and were models for the young, as well as full of instruction for all.

In the remarks of Mr. CUSHMAN, President of the Society, he said that the path of duty and usefulness to farmers is like that to fame—upwards and onwards. We may have done well to-day; we must do better to-morrow and in all coming time. "The past, for good or evil, is behind us. The *present* only, beautiful but fleeting, can we call our own. He that can seize her, ere she flies, and make her wholly his, is indeed happy."

"Progress, improvement—a higher destiny, a happier day—these all men should seek—should labor for, to the last."

All he said was just, and applicable to all. "If we *knew* more, he said, we could raise more with the same labor and expense; and consequently could make more profit than we now do."

Mr. PAIGE, President of the *Bristol County Society*, made pleasant and excellent remarks. In visiting two shows, last year, each attended by 10,000 persons, he had not heard a profane or vulgar word, or seen any one intoxicated! Are not these the happier days that the old poets celebrate,—

> ——"those golden times,
> And those Arcadian scenes, that Maro sings,
> And Sidney, warbler of poetic prose?"

Highly as these annual gatherings are estimated, they are not fully appreciated yet, as there are thousands who do not attend them, and know little or nothing about them. They are, however, what commencement is to the student and his friends; the convention to the statesman, when some great project is on foot; or the anniversaries of the various religious denominations. They are a summing up of the operations of the year; a comparison of notes and opinions; a bond of union, and powerful incentives to further progress. As at present conducted, we do not anticipate any unfavorable influences springing from them. Their moral aspect is guarded with a stern vigilance, so that no licentious practices shall be mingled with their exercises. But to our extracts:

SYSTEM—OR SCIENCE.

The learned professor said, "the day has passed away when farmers repudiate science. They now know that science means simply knowledge reduced to a system so as to be readily taught and easily understood, and therefore every truly practical farmer must necessarily be a scientific agriculturist. Books are now no longer repudiated, and a fact is known to be no less a fact because it is printed. The practical man, who is sufficiently daring to adopt new and useful practices which have been well tested by able persons is not now looked upon by his neighbors as visionary."

That there is more respect for scientific effort than heretofore, there is no doubt; and that there is more confidence in it, is encouraging. But large numbers look on it still distrustfully, or, if they depart from their old habits, engage extravagantly in the opposite extreme.

ON VENTILATION.

"The ventilation of stables is of great importance. When animals are surrounded by the gases given off from the surface of their bodies, and annoyed by quantities of ammonia continually being freed from their fermenting excretia, they require a much larger amount for their sustenance than when in stables properly ventilated. If an ox be enclosed in a varnished silken bag tied about the neck so as to leave the head free to breathe the atmospheric air, the amount of gases given off from the surface of the body and confined within the bag for a single 24 hours will cause his death; so that it will be readily understood that the ill effects of badly ventilated stables are in a great degree deleterious. Proper temperature is of the highest importance. The organism of the ox is such that his improvement in flesh making is dependent not only on the amount of food consumed but also upon the temperature by which he is surrounded when digesting it. Much of its results will be required to supply the necessary animal heat, unless by proper protection from cold he is not called on to furnish it by parting with a corresponding quantity of fatty matter."

More attention is given to the subject of ventilation, both in our houses and barns, than has been the practice heretofore. The subject of ventilating barns was freely discussed at the agricultural meetings at the State House during the past winter, and facts were stated, proving the importance of a pure atmosphere, even for our animals.

GREAT PRODUCTS FROM HIGH CULTURE.

"Look at the Bergen gardeners. Many of them pay $50 or some $75 per acre per annum, yet by improved methods of culture they raise remunerating crops, while gardeners in other parts of the country would consider such a rental a complete drawback to their success.

"A few farms are found, in almost every town where wheat is grown, that yield 45 bushels of wheat or more per acre, and still the average crop of this State is not 13 bushels per acre. Should not every farmer, for this reason, endeavor to get at the cause why his crops are so inferior? and more especially so, when I inform you that in very many instances, the soils upon which these differences of crops exist are very similar. Some farmers in Massachusetts have raised 100 bushels of shelled corn per acre. Why should not all endeavor to raise similar amounts?"

WHY CROPS LODGE.

"I have been requested to state the causes why wheat and other grain crops sometimes lodge.—This is evidently for want of proper strength of straw, and the cause may be then readily understood. The rattan, bamboo and corn stalk, &c, have a silicious coating or varnish on their surfaces. If we place in the fire an ordinary Hessian crucible and throw in it the outer peelings of corn stalks, keeping the crucible at a red heat, the woody fibre will burn off, and by continuing the operation for many hours until the coating of many stalks has been thus consumed, we shall find the crucible to contain a button of glass, which being analyzed will prove to be a combination of silex, the base of common sand with one of the alkalies.

"Now as common sand is not solublein water, and as plants have no mechanical contrivance for disintegrating it, they are unable under ordinary circumstances to take up the proper amount for creating their surfaces and giving strength to the straw; for straw, like the corn stalks, owes to silex the whole of its power to maintain a perpendicular position; but if the soil contain either lime, potash, or soda in sufficient quantities to dissolve the silex, or rather to render it soluble so as to form the silicate of lime, the silicate of soda, or the silicate of potash, in sufficient quantities so as to be dissolvable in water and carried into the plant for the necessary appropriation, then the crops will not lodge.

"If the farmer manures entirely with putrescent manures, such as those furnished by the barnyard, and his soil be not originally charged with excess quantities of alkalies, the growth of the grain may be large enough by its weight to bend down the straw."

We suppose the same reasoning is applicable to the grass crop. On a clay soil where the grass in certain parts of the field usually lodges, interesting experiments may be made by spreading sand liberally on some of the spots, and noting the effect.

IMMENSE SUPPLY OF FRUIT.

"Notwithstanding the great scarcity of fruit in this country compared with our wants or desires, still the amount raised is many times greater than in England. During the last year, an account was given in the *London Times* of the amount of fruit

brought to England from the continent. The home production was also estimated. I had the curiosity to reduce the quintals, bushels, hampers, etc., enumerated, to the size of peach baskets, and found that the whole amount of fruit consumed in Great Britain in one year was not as great as the amount of peaches and strawberries carried into the New York market from the State of New Jersey in one week. The Amboy railroad has received in one day, $1100 as freight on peaches, at 8 cents per basket, and this is only one of the many channels through which peaches are carried to New York from New Jersey. Ninety thousand baskets of strawberries have crossed the Jersey city ferry in a single day. A steamboat from New Brunswick, carries daily many thousands baskets of peaches on her deck. Steamboats are daily plying during the peach season from Delaware to New York, and one grower, Mr Reybold, owns two steamboats used exclusively for this trade."

Near the cities and large towns of New England, there is a pretty fair supply of good fruit.—But in the country towns, beyond good apples and a few indifferent pears and cherries, there is little or nothing in the way of cultivated fruit. There is room for the effort of a thousand minds and hands among us, on the subject of gardening.—Comparatively few farmers have any of the smaller fruits on their tables, such as strawberries, gooseberries, raspberries, blackberries, plums, apricots, peaches, and the finer pears. They have not learned their value as articles of diet or as crops profitable for the market. And the love of home, the contentment, and the influence over the morals and heart which a well-ordered garden creates, has, with most farmers, never been taken into the account at all. There are two or three hundred thousand, perhaps half a million people in the State of Massachusetts alone, who raise no fruit. To afford them a fair supply, such as health demands in hot weather,—to say nothing of appetite,—requires vastly more than is produced among us. The New Jersey peaches are brought to us in large quantities; but as they must be plucked some time before they are ripe, in order to get them here with any of their fair proportions, they undergo an acetous fermentation which renders them unhealthy.

USES OF THE ATMOSPHERE.

"In all maniputations of the soil, the agriculturist should bear in mind that the atmosphere plays an important part in all vegetable growth. Without its influences, none of the chemical changes necessary for the creation of plants or the meliorations of soil can take place. Subsoiling, plowing and underdraining, are mere adjuncts to facilitate the meliorating influences of the atmosphere. The hoe, and the rake, cultivator, and every other agricultural tool used for disturbing the soil, are for the common purpose of permitting the atmosphere to pass between the particles. Its uses above and below the surface of the soil are equally efficient. On top it is the vehicle for the reception of moisture and of gases arising from decaying vegetation which it holds until the descent of dews and rains, carrying them into the soil. Oxygen, one of its constituents, is necessary to cause the ultimate particles of the soil to yield up their constituents for the use of plants. Without oxydation, the soil would be destitute of many of these materials, which are rendered soluble and fit food for plants by atmospheric agency. The great constituent of all plants, carbon, exists in the atmosphere as carbonic acid, and is received from the decomposition of farm crops, animal respiration, etc.; hence the great mass of all plants is derived from the atmosphere, and if it be shut out from freely circulating in the soil, we cannot hope for profitable results. In the compost heap, it is equally valuable, for both in it and the soil, it is the vehicle, transferring heat and moisture. The slightest reflection, therefore, will show the farmer how necessary it is to manipulate his soil so as to insure the easy ingress and egress of atmospheric air.

VALUE OF CARROTS.

"Cattle become accustomed, during summer, to green food, and when kept altogether on hay and other dry fodder, they cease to take on flesh with great rapidity.

"The use of carrots, particularly, should be introduced. Carrots for horses are now the ordinary practice of even the livery stable keepers of the larger cities.

"A bushel of carrots and a bushel of oats fully equal as food for the horse two bushels of oats; for although carrots do not contain the same amount of nutriment by measure as the oats, still their pectic acid gelatinizes the contents of the stomach of the animal, and enables the oats to be entirely digested."

Too much money is paid out by farmers for grain for their milch cows. There must be a more general resort to roots to be fed with good English hay; when these are in sufficient quantity to carry the stock through the winter, there may be profit in producing milk for the market.

VEGETABLES.—Put in the seed liberally for vegetables for winter feed for stock. They will promote the health of your cattle, save hay, and enable the milk-producer to keep his money, instead of paying it out for grain. Sow various kinds,—carrots, beets, parsnips, mangel wurzels and ruta bagas; sow in small patches on different soils, and then, whether the season be wet or dry, a fair crop may be expected.

BUGGY PEAS.—Before sowing peas, immerse them in hot water for a minute or two, by which means

the weevil will be killed, and the sprouting of the peas will be quickened.

Prof. Harris says the insect is limited to a certain period for depositing its eggs; late sown peas therefore escape its attacks. The late Mr. Pickering observed that those sown in Pennsylvania as late as the 20th of May, were entirely free from the weevil; and Mr. Worthington, of Rensselear County, N. Y., who sowed his peas on the 10th of June, six years in succession, never found an insect in them during that period.

From the New England Farmer.

ANALYSES—PLOWING—WATERING.

MR. EDITOR:—In your paper of the 12th of February is a letter signed S. F., from Winchester. The writer is very skeptical as to the value of analyses of soils, and gives the analysis from the Scioto valley, and from Palmer, Mass., in which the advantage is rather on the side of good old Massachusetts, God bless her! I have mislaid Mr. Wells' statement, but if I remember rightly, he remarks on the extremely minute division of the Scioto soil—he was obliged to use an extra fine sieve to separate it, I think sixty meshes to an inch, and the percentage of coarse matter was very small which did not go through and that was mostly fibrous. A state of things certainly most conducive to the growth of all plants, as the roots are able to penetrate in all directions, and always in close contact with appropriate food; and then again the great depth of the soil is to be considered, which we have not.

There is another case of some remarkable tobacco land in Virginia, which on analysis proved to contain a very large percentage of iron, but it was in the same state of minute division, and it is the best land in the State.

Analysis tells us that our soil contains a rather better supply of the various salts necessary to vegetation than the Scioto—but we must put our land to the *plow*, dig deep, and pulverize well; to produce the same effects; no four inch skinning will do it. Delicate roots, whose pores must be sought for with the aid of a magnifying glass, require their food to be presented in homœopathic doses, and it is very unreasonable to expect a great crop, where the plant is forced to seek its support through a hard pan that has not been disturbed since the flood. That large crop, can be raised in these parts, by proper attention, is a settled fact; and I believe *easier* than poor ones.

Farmers will be very incredulous, on being informed that their *iron tailed cow* can be turned to a more noble use, and yield a far greater profit, by watering their *manure*, instead of watering their *customers' milk!* (not that I would insinuate that all farmers make a practice of it, but there are *amateurs* in all professions!) like that prince of farmers, J. J. Mechi, who by *high culture* is able to raise mangel wurzel at an expense of one dollar twenty-five cents per ton of 2240 lbs.! *American farmers think of that!* The average on a ten acre field was forty-three tons per acre! costing fifty-three dollars seventy-five cents; in fact his whole farm is kept like a garden, and produces accordingly. His procedure in the above case, was to apply two hundred and twenty-five pounds of dissolved bones to the acre, and water the growing crops profusely with liquid manure, he finds that one load of dung rendered liquid, will manure as much land as four loads dry, and its effects are seen at once as it penetrates the ground and presents itself in an acceptable manner to every tender rootlet, whereas in the common mode of spreading with a shovel, it is scattered here and there, some plants getting more than their share, and others not enough. At first sight, it might appear quite a task to water acres of land! but I think it would be found in practice that it can be done cheaper than by the old method, as from a watering machine (which any farmer could make) it spreads itself as fast as the team walks across the field. One hundred and fifty pounds of green manure to one tun of water, or two hundred and fifty gallons, would be quite strong enough probably.

I think it is not best to spin any more yarn this time, as perhaps Mr. Editor you will not think it worth weaving into your pleasant sheet, particularly when you learn that it comes from a *book farmer, without any land!*

Respectfully yours, J. G. CHANDLER.
Under the Cliff, Roxbury, Mass.

For the New England Farmer.

PLOWING OR PLOUGHING.

The season for this operation having again returned, awakens the inquiry, how is the term properly *spelled?* We cannot perceive any good reason why *three letters* (*ugh*) should be used, when *one* (*w*) will do quite as well. We know such has been the usage—but usage without reason, is not of itself satisfactory. If authorities are cited, they will be found both ways. The *Albany Cultivator*, the leading agricultural journal of the Empire State, uses the letter *w* only, the *Massachusetts Ploughman*, adheres to the old mode We are opposed to innovations, without benefit; but where distinct benefits are apparent, and no disadvantages to accrue, we go in heartily for the improved mode of spelling. It is time that uniformity should prevail. Will not your Board of Agriculture, Mr. Editor, settle this matter? This brings to mind a favorite idea, oft repeated by a distinguished member of this Board, that not more than six per cent. of the lands—or six acres in a hundred, of the lands in Massachusetts, are fit to be plowed. I am at a loss to comprehend the meaning of this assertion. Surely it cannot be, that generally on a farm of one hundred acres, not more than six acres, can be benefited by the plow. The reverse of this is nearer the truth.—On most farms it will be difficult to find six acres in a hundred, that will not receive benefit from being plowed. Pastures, as well as fields, may be benefited by the plow. To be sure, some lands are much rougher than others, but very few lots are so rough, that a plow cannot be beneficially used in some parts. I would not have presumed thus to criticise this expression, had it not have been reiterated, year after year at the Legislative meetings, by one whose instructions are regarded by the people with much respect. I hope, therefore, he will condescend to explain what he means, when he says that "not more than six per cent. of the lands of Massachusetts are susceptible of benefit from the use of the plow." P.

May 2, 1853.

For the New England Farmer.

THEORIES AND FACTS—DO THEY AGREE?

I once heard it remarked by a neighbor of mine, that "he never yet saw anything that he could not find some fault in." I would not cultivate the spirit of fault-finding; I would not strive hard to see the spots on the bright face of the sun, nor blemishes in the character or outward life of my dear friend. But sometimes, without seeking them, and contrary to my sincere desire, I see, or think I see, imperfections in my wife Hepzibah, in my daughter Felicia, and, I grieve to say it, in the *New England Farmer*. Now in all these cases I would very much like to be able to believe that there was no blemish, not even "the shadow of a shade" to obscure their brightness. But alas! I must either believe they sometimes err, or else that I myself do not see clearly. Under these circumstances, who can doubt which horn of the dilemma I take hold of? Possibly I may be in the wrong—if so, I ask for light. As I am a man of few words, I will come at once to the point.

In the first place, you, Mr. Editor, assert in the last *Farmer* that the pine "has the most agreeable and wholesome quality of drying the atmosphere where it stands." (*a.*) Is it so? I have always supposed that all shade trees had the opposite tendency, in proportion to the denseness of their foliage. I have always been a great lover of woodwalks, and have spent many an hour in pine woods, and oak woods, and mixed woods, but it never struck me that there was, on similar soils and similar exposure to the sun and air, any excess of dryness in the pine woods over other woods. But it may be that my physical organization is not sufficiently delicate to note the nice difference that may exist. If your opinion is grounded on scientific facts, would it be asking too much to request that you will give those facts? I presume they would be interesting to others, as well as to myself.

Nextly,—A correspondent, on the same page, who writes about plaster, advances one or two notions which, I think, a more careful observation would show to be erroneous. He says: "Why some fields become green sooner than others in the spring, is because more grass was left on them in the fall; *the grass does not grow, but the withered blades turn green.*" Now I would in all diffidence ask, if the writer of that sentence has ever actually seen the dry, withered blades of grass become green. I can hardly believe it. I must, for the present, think he permits his theories to deceive his senses. (*b.*)

Again, a little further on, the same writer gives me occasion to infer that he supposes stones to exert a beneficial influence on the soil, or at least that they promote the growth of the neighboring vegetation. (*c.*) I know there is a prevailing opinion that stones make themselves useful by attracting moisture on soils that would otherwise be dry, and assist to warm those that are cold and wet. If they do perform both these offices, they are accommodating, truly. But is there not more theory than fact here. I grant there is some fact; but it leads me to a different conclusion. I grant for instance, that when the stones *lie upon the surface* of your land, the grass around the stones will be stouter than elsewhere. Why is it? Simply because that grass has the advantage of the soil beneath the stones; and thus, if the stones cover half the surface, the grass on the other half has the use of the whole field. But do you get more grass because the stones are there? I think not. And where the stones sink deeply into the soil, I have not been able to perceive that the grass which surrounds them is more luxuriant than that which is at a distance from them. There is a fine opportunity to examine this matter in some of the pastures lying north of old Pongatasset, in this town.

JONATHAN DOOLITTLE.

Concord, April, 1853.

REMARKS.—Our correspondent's signature is a misnomer. We have the pleasure of his acquaintance, and know, that instead of "doing little," he is a man of progress, and does his part to keep the world in motion. His inquiries are interesting, and shall receive such light as our "dim candle" can shed upon them.

(*a.*) Our remark that "the pine has the most agreeable and wholesome quality of drying the atmosphere where it stands," was not based on scientific facts, but upon the observation of many years, strengthened by what we considered corroborating circumstances.

The character of the tree depends much on the shape and operation of its leaves. Those of the pine are long, numerous, and needle-like, dividing the currents of air into minute portions as it passes among them, and producing those delightful sounds, peculiar to the bass notes of the Æolian harp.

At Nahant, where the winds swept unobstructed over the farm of Mr. TUDOR, frustrating all attemps at raising the finer fruits and vegetables, he constructed a fence sixteen feet high with spaces of two or three inches between the palings. The effect upon the damp east winds and cold, was such, that on the south side, the frost only penetrated the earth about as many inches as it did feet on the north and east side, and he was enabled to raise fruits, vegetables and flowers in perfection where they would not mature before! There was a warmth and dryness on the south side, while the other side of the open fence was damp and chilly. Do not the pine leaves and the fence have a similar influence on the atmosphere? Is there not a reason for setting pines on the north-eastern exposure of gardens, beside that of merely *obstructing* the wind? Is it not softened and tempered in its passage through them, losing something of its chilling dampness, as well as force? We believe so, and therefore, "that the pine has the most agreeable and wholesome quality of drying the atmospere where it stands" by the mechanical, and perhaps, physiolgical, operation of its leaves. MICHAUX says, in his interesting work, *The North American Sylva*, "the debris of granite rocks may be considered as the universal soil suited to the pine and fir tribe, and a dry subsoil an essential condition for their entire prosperity, but

they will grow on all soils whatever, that are not surcharged with water. The roots are near the surface, and hence do not require a deep soil; and as their needle-like leaves do not carry off much moisture by evaporation, their soil may be drier than that required for any other kind of tree."

In *Peck's Gazette*, published some twenty years since, after describing the beauty of the pine, he speaks of the delightful atmosphere in their presence, calling it a "*terebinthine* atmosphere;" the word *terebinthine* being the Latin word for turpentine.

We thought our theory worth uttering;—at some future time it *may be* dignified into a scientific fact.

(*b.*) The gentleman who said the reason "why some fields become green sooner than others, in the spring, is because more grass was left on the them in the fall,and that *the withered blades turned green*," stated what, he said,were facts—what he had carefully observed, by marking portions of grass and watching the change from day to day. He presented parcels of the grass which he said had been changed in this manner.

(*c.*) With regard to the good influence of *stones* on the land, the gentleman who introduced the topic at the agricultural meeting at the State House must defend himself. Many persons (but not among them our intelligent correspondent, "Jonathan,") seem to have an idea that weeds, beyond a sufficient quantity to give the pigs an occasional feed, and stones enough to make what wall is wanted, are nothing but a pest and a plague. In wisdom He made them all, that made the corn-plants and the fruits and flowers. Weeds are but grasses out of place, and stones *impart, at least*, but *future harvests of manure!* Large portions of our soil come from the stones; the granite, so common all about us, contains some of the richest elements of fertility. One kind of its feldspar contains nearly *seventeen proportions* in a hundred of potash. We are also dependent on the rocks for the lime and gypsum which we use as fertilizers. Marl is a compound of lime and clay, while clay itself has been formed by a decomposition of rocks, such as granite, feldspar, clay slate, &c. We have heard of an instance where a farmer manured a large field unwittingly. Wishing to dispose of a surplus of small stones, he placed some hundreds of loads along a side hill where he intended at a future time to build a wall; circumstances prevented this, and after a while he noticed that the grass crop for several rods below the stones had materially increased; and this process went on until several acres were fertilized in this manner. We know nothing of the particulars of this case, but presume the stones were in a state of partial disintegration. If they were feldspar, it will readily be seen, from what has already been said, what an amount of potash they might supply.

Our friends, however, will hardly consider their stone heaps a reliable source of fertility for their exhausted acres. We only mention this instance to show that with many of us, there are a great many things "which our philosophy never dreampt of."

For the New England Farmer.

FRUIT TREES.

The very great and increasing interest in fruit, and fruit trees, will be my apology for offering a few remarks upon the subject.

Your correspondent P., a few weeks ago, spoke of an orchard of 40 trees that produced 300 barrels of Baldwin apples, in each of the years 1850 and 1852. This is certainly an extraordinary yield, and would seem to warrant almost any amount of cultivation. I think the public would like to know some more of the particulars about this orchard. How the trees were set out upon the ground? How far apart, whether the ground was all shaded, by the trees, or whether they were standing more open, admitting the sun more freely? How much ground did they stand on? Did those standing near the wall bear any better than those in the centre of the lot? What kind of soil? &c., &c. Because it is doubted by some whether it is best to cultivate so highly. It is thought that forcing the tree beyond its natural and healthy powers, will be injurious to its longevity and future productiveness.

It is thought by many, that fruit trees are forced too much at the present day, more especially apple trees; pear trees will bear a higher state of cultivation.

In support of this theory, it is asserted that vegetables, if cultivated too highly, will not bear fruit; potatoes will run all to vine; corn to stalk, &c. Animals may be fed too highly, wear out and become useless in a short time. Stage horses are soon used up, and even cows when forced to yield three pounds of butter a day for one season, are seldom heard of afterwards.

We think that young apple trees should not be forced with very rich manure. If the ground around the trees, from 2 to 6 feet, according to the age of the tree, be kept cultivated and free from weeds, if a quantity of mulch, or meadow-hay be placed about it, the weeds will be kept from growing, and the hay will be sufficient manure. We think we have seen trees that have been forced and driven too fast, especially peach trees; at least the fruit on them was scarce.

Some flourishing peach orchards, in this neighborhood, have been rooted up, and burnt, on account of the disappointment of the owners.

Trees, when forced so much beyond the natural and healthy growth designed by the Author of Nature, are much more liable to be affected by the cold of winter. The tender and succulent growth of the wood will not get sufficiently hardened to resist the frosty weather.

Young apple trees were injured, in this region, in the winter of 1850—1, on the north side of the tree; the most thrifty and latest growth were the most affected, and more on the north side of the hill than the south; and mostly confined to elevated grounds. M.

Topsfield.

For the New England Farmer.

EARLY RADISHES AND TURNIPS.

BY DR. JOSEPH REYNOLDS.

The soil of gardens that have long been cultivated becomes filled with worms that interfere greatly with the production of early vegetables. Radishes and turnips, of all sorts, and lately beets, are so much infested by worms, that it is exceedingly difficult to obtain them fit for the table in the early part of the season. They are so perforated by worms, and so knotty, that they are unfit for use, and many persons who are fond of them have ceased all attempts to cultivate them. It is very well known to every farmer, that we can raise good turnips of various kinds, from seed sown in August, upon land upon which turnips sown in April would be of no value whatever. Now most of the worms which prey upon our vegetables spend a portion of their lives in eating and growing, preparatory to a change of form. It is during this eating period, which occurs in the spring and early part of summer, that they are so destructive. After this period, they either assume the form of winged insects and fly away, or are busy depositing their eggs and forming their cocoons for the coming winter. After worms attain their full growth, their depredations usually cease. To this there may be exceptions, as the worm that feeds upon the tubers of the potato, until late in the fall. But most worms cease their depredations upon roots before the middle of July, many even before the end of June.

Now, Mr. Editor, any man will confer a great favor upon the lovers of good vegetables, who will tell us how to prevent the invasion of these insects even upon our early radishes and turnips, to say nothing about those clay colored villains who steal out in the darkness of night, and cut off our early cabbage plants and cauliflowers, with such malicious delight, and when daylight approaches, sneak back into their hiding-places. I have thought a good deal about this matter, and have made some experiments with relation to it, at different times. In a piece of ground where worms had injured the potatoes very much, I planted them, manuring the alternate rows with compost manure and with plaster. The potatoes that were manured with plaster alone were smooth and fair, and of fine quality, while those that grew in the rows manured with compost were rendered almost worthless by the worms. I have noticed that seed corn steeped in a solution of saltpetre and dried by being mixed with plaster is seldom attacked by the cutworm.

Worms do not abound in sandy soils, and they are rarely found in clay. Soils containing a large amount of *humus*, which consists of decayed vegetable and animal matter, are those in which "they most do congregate." This affords them the pabulum which they require. Such are the soils of our gardens. By the application of large quantities of compost, year after year, they have become rich in this element, and are thus doubtless better adapted to the production of the greater number of vegetables, than they could be rendered by any other means. But the gardener does not require a uniform soil. He needs perhaps half a dozen different soils, and as many different kinds of manure, within his little enclosure, it may be, of only a few square rods. But this subject is too prolific to be entered upon here. Perhaps upon some other occasion, I may give you some thoughts upon it. What I would say now is, that I have raised very good radishes, smooth and fair, in an old wormy garden in the following way. Dig a trench, four feet wide and 10 or 12 inches deep, throwing out all the soil to that depth. Then set boards edgewise against the sides of the trench. This will not only prevent the sides from caving in, but prevent the incoming of worms from the adjacent soils. Then with a mixture of equal parts of sand and clay fill the trench to within two inches of the surface. Let these be well incorporated together. Then manure with fresh cow manure, and work it into the mixture thoroughly; sow your radishes, and you will seldom if ever fail to get a fine crop. If it is an object to get them very early, let the boards around the sides of the trench protrude four or five inches above the surface, and cover with glass.

Such a bed will last two or three years, when it should be renewed. In the same way early turnips may be raised; but as these are wanted in larger quantity, and of course require more ground, I have adopted a different course with them, and with good success. Take six parts wood ashes, one part air-slacked lime, one part plaster, mix them well together, and sow the mixture upon the plowed surface; work it in well with a rake. Then with the hoe form the surface into slightly elevated ridges, sow the seed, and cover with the rake. Use no other manure. If the small black fly, which is so great an enemy to the early turnip, attacks them, sift ashes freely over them just before a rain, or at sundown after the dew has began to fall, and unless the season shall be very dry, you will get a good proportion of fair, eatable turnips, not indeed like turnips grown in September and October, but very much better than the early turnips usually grown in our gardens.

Concord, May, 1853.

For the New England Farmer.

YARROW, OR WILD CAMOMILE.

I would be obliged to you or some of your contributors for information relative to the destroying that pestiferous weed, "Yarrow, or Wild Camomile," without plowing; and whether it could not be destroyed by some chemical agent, instead of pulling. My reason for the above is; that my irrigated meadows are beginning to be attacked, though not so liable as where the water seldom runs, and which we have no desire to plow. There is another called "Pigeon weed" in parts of this settlement, but it has not made its appearance here yet; it is spoken of by those who know it to be worse than the yarrow, grows tall and strong, and the seed quick to vegetate. If known by this name to any of your correspondents, I would also like to hear about it as above.

M. A. WILSON.

Fonthill Nursery, near Freeport, Penn.

HORTICULTURAL EXHIBITION AT CONCORD.—We are informed that the enterprising citizens of Concord, the old battle town, will have an exhibition of fruits, vegetables and flowers, to take place, as the season may warrant, on the 11th or 18th of June. Committees of ladies and gentlemen

have been appointed to make the necessary arrangements, and we doubt not they will make it an occasion worthy the reputation of that ancient and time-honored old town. It is expected that the citizens, generally, will contribute to the exhibition, which will be free and open to all who may choose to attend.

THE SOD AND SUBSOIL PLOW.

One of these plows, from the warehouse of Ruggles, Nourse, Mason & Co., of Boston, was in operation on the farm of H. F. French, Esq., of Exeter, last Monday. Many of our best farmers were present, and with one voice pronounced it a decided improvement on any breaking up plow they had ever seen. It is the same implement known in many places as "*the Michigan double plow.*" It is like an ordinary sward plow, with another smaller plow set in the beam, forward of the larger. The forward plow cuts a shallow furrow, turning the sod merely, while the other turns the rest of the furrow upon the inverted sod. Both plows may be guaged to any desired depth. Upon Mr. French's land, a sandy loam, the forward plow turned four inches, and the large plow seven inches, making a clean furrow of fully ELEVEN inches depth, and FIFTEEN inches width, by repeated measurement. The land when plowed had the appearance of finely pulverized old ground, no vestige of sward or grass roots being visible. It is found that no greater strength is required to draw the double plow, than the common plow, the splitting of the furrow-slice lessening very much the friction upon the mould-board. Four oxen were abundantly sufficient to do the work as above stated. The plow used was the Eagle, No. 35. The advantages of such a plow, in effectually subduing witch grass, in lightening the labor of planting and hoeing, and in turning over meadows in order to lay them down at once to grass, are obvious from the facts already stated.—*Exeter News Letter.*

REMARKS.—We have several times seen these plows in operation, as well as examined their peculiar make. The curve of the skim-plow, or forward mould-board, is such as to turn directly upside down the turf which it cuts up. The turn of the rear mould-board is very beautiful, and being constructed upon strictly mathematical principles, offers the least possible resistance to the earth against which it is pressing. Although curving, as a whole so as to roll the subsoil over and completely cover the turf which the skim-plow had covered, it is in fact a series of straight lines upon which the soil moves easily away until deposited where desired. A stick with a straight edge may be laid along this mould-board, in various ways, so that the light will scarcely be admitted under it, strange as it may seem. The adjustment of the forward mould-board to the beam is one of extra strength and convenience, by which various depths of work are easily and expeditiously secured.

The forward mould-board overturns the *entire* sod as wide as the working of the rear mould, and so places it in the channel previously made, as in *no case* whatever to be brought to the surface by the harrow or other implement of after cultivation.

The rear mould-board takes up the under soil and sifts it over the inverted sod, entirely filling the surface, and at the same time disintegrating and mellowing the earth so thoroughly that the plowed land requires little or no harrowing to fit it for the reception of seed, and in free loams the use of the harrow or other instruments, as pulverizers, is dispensed with.

The draught of the plow is remarkably light, considering the great amount of work and the thorough pulverization effected by it.

COMPARISON BETWEEN OX & HORSE LABOR FOR THE FARM.

Some time ago we published a communication containing the experience of Mr. Geo. Dewy, of Hanover, upon this subject. The practical value of that article found for it a place in nearly every agricultural journal in the country. In a late number of the *Wisconsin and Iowa Farmer*, we find another calculation arriving at similar results. It is well worth the consideration of the farmer. We are well aware of the attraction that a fine span of horses has for the young farmer. The motion of the horses is more congenial to young blood or to fast blood. The movement of cattle is generally slow and sleepy compared to the life and energy of the movement of the horse. Then a fine span of horses has a more noble appearance, especially when taken from the plow and driven to the street. It is pleasant too, once in a while to be able to convert the spirited plow team, into a spanking pair for the pleasure carriage. But the advantages in favor of the use of oxen for farm labor are such as renders it difficult to dispense with them. The pros and cons may be summed up in three propositions.

1. The yoke of good oxen, with good care will do as much work annually as the span of horses.

2. The oxen improve in value, or at least do not diminish, until at the close of their labor they are still as valuable for beef as when at five or six years old; while the horse is, at twelve, materially depreciate in value, and in a few years more becomes a burden, only to be thrown off by the axe.

3. The first cost of oxen and fixings is less than that of horses, and the annual cost of keeping, and the general wear and tear is less by one third or two fifths.

Under these considerations quite a profitable difference in favor of the use of oxen is cyphered out.

The writer whose statement we exhibit, assumes the cost of a good pair of horses to be $200, and their harnesses $25, making $225, the interest of which at 7 per cent makes $15,75. It costs to feed, for grain, $68,50, and for hay, $48,00. making the entire annual cost $132,25. A yoke of good oxen, yoke and chains cost $110, which at 7 per cent interest is $7,70 :—grain to feed costs $34,35, and hay $48, making the annual cost of a yoke of oxen $89,95.

At these rates per annum the account is kept for ten years with the same set of animals.

Keeping one pair of horses, at $132,25	$1322,50
Shoeing, at $12 per annum	120,00
Total	$1441,50
Keeping one yoke of oxen ten years, at $89,95	$899,50
Shoeing, at $5 per annum	50,00
Total	$949,50

At this time the yoke of oxen are worth for beef $80,00, which being taken from the cost of the ox labor for the ten years.

Considering the pair of horses at fourteen worth $125, this sum is to be taken from the cost of horse labor which reduces that sum to

Cost of horse labor	$1327,50
Cost of ox labor	869,50
	$448,00

In ten years then the farmer is better in his standing by $448, by the use of oxen instead of horses for farm work.—*Granite Farmer.*

WASH FROM THE SINK.

There is probably no article that can be applied to growing vegetables, more decidedly valuable, than the wash from the sink spout. And yet this is not generally understood by farmers, and few efforts are made even by the most economical, to economize an article in which are to be found all the elements which contribute to the sustenance of vegetables in a state of perfect solution, and consequently in a condition the most readily appropriable by the organs they are designed to nourish, invigorate and sustain.

It has been computed by chemical men that the amount of *pabulum*, or alimentary matter, contained in the urine of animals, is equal to that of the solid voidings. It has also been asserted that one hogshead of soap-suds, if applied in irrigation, would produce effects upon the corn crop as obvious and enduring, as those resulting from a cord of the best manure. This assertion is, perhaps, erroneous; but that the effects of the article applied in the manner specified, would be highly salutary, no one who has witnessed the effects of soap-suds upon cucumbers, squashes, house plants, &c., can indulge a doubt. But the most economical method, probably, of saving and appropriating this liquid to the purposes of vegetable enrichment, is to mix it with the materials of the compost heap. Any substance which will absorb it, may be made a vehicle for conveying it to the fields, such as swamp muck, which, in a dry state, readily absorbs three times its weight of water, loam, old tan, rotten leaves, straw or saw dust, all of which are highly valuable, and act favorably both on the soil and crop.

If it is found inconvenient to convey the sink waste to the piggery or barn cellar, dig a hole near the house six feet square, and two or three feet deep, according to the amount of water from the sink. If this is designed as a permanent arrangement, it would be well to stone or brick it and cover the bottom and sides with water cement. But it will answer very well without either, by laying some old timber, joist or stones round the edge, and banking the earth up against it so that it may be covered up and not be offensive to the sight or smell.

On the bottom of this, lay meadow mud, straw leaves, weeds, or common loam, and let the water on. These materials should be frequently supplied in small quantities until the place is full, when it may be carted away and the operation continued.

A farmer who has adopted this plan, thinks he can make by it at least, twenty dollars' worth of the best of manure in a year, though the operations of the kitchen are limited, the family being small.

"TIRED OF FARMING."

A few months ago, a man who had been a farmer from his early life, came to the city to buy stoves to sell again. Said he to the stove dealer, "the weevil begins to infest the wheat, and all things considered, I am 'tired of farming,' and so have sold my farm." The stove dealer remarked, that he thought within himself, that just as like as not the discontented farmer would find a weevil in the heart of the new business—and so it proved, for when the day arrived on which the note matured, given for the stoves, the old farmer, now turned tradesman, confessed that he had not been able to sell his stoves—that he had most of them on hand.

"Tired of farming," the most independent business a man can engage in, because, forsooth, there are disappointments, and perplexities, and trials, and vexations, attending it. Remember, you who are tillers of the soil, that your cares and troubles and anxieties are few and far between, compared with those suffered by commercial men. If your chances to become rich are not so inviting and profitable, as those of the tradesman, bear in mind that the dangers of being very poor and destitute are far less. Famine and abject poverty seldom overtake the farmer, or haunt him in their ghostly visits. He lives on the high table-land of promise, rising far above the murky region of want and destitution. His children can say there is bread enough in our father's house, and a piece to spare to the hungry of other less fortunate callings.

"Tired of farming!" Supposing you are.—What is to be done in such a case? Do you expect to find an employment without trials and perplexities? If so, you are doomed to disappointment. There is no vocation in this world that will exempt those who engage therein, from cares and fears and vexations. So if you are tired of farming, the best way is to get rested just as soon as you can, and prosecute anew the business for which you were early trained, and which, if diligently followed, will yield a good supply of all the necessaries and comforts of life, together with opportunities for mental and moral culture.—*Rural New-Yorker.*

FRANKLIN COUNTY SOCIETY.—Through the politeness of Hon. H. W. CUSHMAN, we have received the Transactions of this Society for the year 1852.

The Annual Exhibition was at Greenfield, on the 29th and 30th September. The Address by Prof. MAPES,—practical, concise, clear and excellent. The reports of Committees and Treasurer's report show a prosperous condition of the society. The committee on "fine arts, fancy articles, &c.," was composed, mostly of ladies—right—why was not the committee on "carpeting, rugs, flannel, &c.," made up in the same manner?

The pamphlet is well compiled, printed handsomely, and reflects credit on the society.

COWS AND OXEN IN PORTUGAL.

The Secretary of the N. Y. State Society has favored us with the following extract from a letter from C. B. Haddock, the United States Charge d'Affaires to Portugal.

Oxen, strange as it seems, are almost exclusively employed in agriculture; nor do they appear to feel the heat much. Indeed the Portuguese have a kind of Hindoo respect for the bovine race, and always treat them well. I never, in any country, saw oxen and cows so universally fat and healthy in appearance. During the winter, though there was not a single frost, the cows driven into the street, in which I live, and milked there every morning at the doors of their customers, were generally covered with warm woolen blankets. Oxen are often protected from rain and flies by an oilcloth, covering them from the hips. I every day see a beautiful ox belonging to the Duke Palmella, and used to draw water in a hogshead, upon wheels, covered entirely with a canvass awning, raised in an arch over the shaft of his cart. Like the snail, the happy fellow carries his house with him. And both oxen and cows are so trained it is curious to see them. The cow is as tame, as easy handled, as quiet, whilst women or children are playing with its horns, as a pet dog. The calf is driven to town with its mother, and learns to go through all the operations which are to be the future business of its humble life, whilst it is thus, with its nose muzzled, following the herd of milch kine. It is called and sent off at will, with a word. Oxen are driven by a man, who goes before them, and sometimes between their horns even; he turns his face to them and brads them with his long goad-stick in the side or the flanks; or he takes hold of a rope which unites their horns, and leads them as we lead a horse. These animals are the peasant's pride, and are often decked with ribbons and bells. I saw, at the October fair, at "Campo Grande," near Lisbon, more than a thousand yoke, many of them splendid animals, and all gaudily ornamented, and driven by men as gaily attired as themselves.

The yoke, what an instrument that is! and the cart, and the plow. These man makes; God makes the oxen. The yoke is a straight piece of chestnut wood, about four inches by two and a half, slightly hollowed, where it lies upon the neck; it has two straight pins, a foot long, running from it, at right angles, where is put the bow, and united under the animal's neck by a bit of rope, or thong of green hide. The rude implement is confined to the tongue of the cart with ropes, and to the horns with thongs. Unyoking is untying the strips which unite the pins under the neck, and those upon the horns. And as the tongue of the cart is fastened to the body, tipping up carries up tongue and yoke together, and leaves the oxen all ungeared below. The cart has solid wheels, about three feet high, and from four to six inches thick, with a fixed axle, that turns, of course, with a wheel. The body and tongue are framed together, and are confined to the axle by pins, between which it revolves with a noise, frequently, that may be heard for a mile. Now and then the axle is oiled, but not generally; the "stridentia plaustra" of Virgil is recalled to you upon every public road. The plow is even ante-Roman; ruder than Virgil describes. The beam extends to the yoke, and is fastened to it with cords. The same stick serves for share, coulter and handle, and is morticed to the beam at not quite a right angle. It is generally pointed with iron. The harrow and hoe are similarly rude.

And yet, with such instruments the fields are made to yield abundantly. Beautiful crops of barley, wheat, Indian corn, and potatoes cover them on every side. Saving of labor seems hardly an object. Men work for fifteen cents a day and find themselves.

STATE BOARD OF AGRICULTURE.

SEVENTH MEETING.

The Board was called to order by his Excellency, GOV. CLIFFORD, the roll called and the proceedings of the last meeting read by the Secretary, Mr. C. L. FLINT. Present, Gov. CLIFFORD, Mr. WRIGHT, Secretary of State, Messrs. WILDER, FRENCH, PROCTOR, SPRAGUE, HITCHCOCK, NASH, PARKHURST, LAWTON, REED, BROWN, WOOD, DODGE, PAIGE and SMITH.

The Secretary was directed to confer with the Sergeant-at-Arms, and make arrangements for a room for the accommodation of the meeting to-morrow.

Mr. WILDER distributed the Transactions of the Norfolk Agricultural Society, among the members of the Board.

Mr. PROCTOR, from the Committee in relation to a *State Chemist*, reported as follows:—

The committee, instructed to report on the expediency of employing a State Chemist, for the analysis of soils and other experiments connected with culture:—fully impressed with the importance of such operations and the knowledge to be derived from them;—are still of the opinion that the time has not yet arrived, when it will be expedient to recommend any distinct action on the subject.

Mr. PROCTOR also reported as follows on the subject of Farmers' Institutes:—

The committee to whom was referred the proposition for the establishment of *Farmer's Institutes* in the several counties of the Commonwealth, analogous to the teachers' institutes, that have been holden with so much favor, have considered the subject, and entertain an opinion favorable to the proposal.

It seems, if assemblages of farmers, and others interested, could be had in connection with the movements of the several county societies, and in a measure co-operating with these societies, their influence might be beneficially extended. Especially would these meetings be beneficial, in enlisting the co-operation of *young men*. There are some things which can be better done by the energy and ardor of youth, than in any other manner. Without presuming to dictate the particular mode of organization, they are content to recommend such organization to the favorable consideration of the Board; not doubting that the secretary will be able to devise a plan of particulars, that will secure all the benefits reasonably to be expected.

The only experiment of the kind, within the knowledge of the committee, was that which took place in March last, at Concord, County of Middlesex; which succeeded to the admiration of all who witnessed it.

On motion of Mr. SPRAGUE, the report was recommitted to the committee, to which, Mr. FLINT, the Secretary, was added.

The Secretary laid before the Board circulars and tables which he had prepared, to be circulated throughout the State, in order to elicit more exact information in relation to the agricultural resources of the State. An interesting discussion took place upon these papers, and they were referred to a committee consisting of Messrs. PROCTOR, FLINT, DODGE, PAIGE and FRENCH.

The Governor here called Mr. WILDER to the chair, who continued to preside throughout the day.

The officer having in charge the publication of the Transactions of the counties, was instructed to cause one thousand copies of the Transactions of the Board to be struck off and bound separately.

Messrs, REED, HITCHCOCK and PAIGE, were appointed a committee to report what action is necessary to facilitate the objects of Prof. NASH's visit to Europe.

Mr. PROCTOR moved that a delegate from this Board be appointed, to visit each of the County Agricultural Societies in the State; which was done as follows: To visit the county of

Worcester	STEPHEN REED.
Norfolk	J. H. W. PAIGE.
Essex	HARVEY DODGE.
Housatonic	EDWARD HITCHCOCK.
Worcester West	SETH SPRAGUE.
Bristol	M. P. WILDER.
Middlesex	B. V. FRENCH.
Berkshire	ELISHA HUNTINGTON.
Plymouth	E. M. WRIGHT.
Franklin	J. W. PROCTOR.
Barnstable	JOSHUA R. LAWTON.
Hampshire, Franklin and Hampden	SIMON BROWN.
Hampden	JOSEPH SMITH, C. B. H. FESSENDEN.
Hampshire	JOHN C. GRAY.

It was voted that the gentlemen elected as delegates to the various societies shall attend, personally, and report, or send a member of the Board as a substitute.

Messrs. BROWN, FLINT and REED, were appointed a committee to collect the names of the officers of the several Societies, and the places at which the next exhibition of each is to be holden.

AFTERNOON SESSION.

Messrs. SMITH and FLINT were elected a committee on accounts.

The committee on the subject of the blanks reported by the Secretary, approved of the forms, but left them open for such modifications as might be deemed appropriate by the Secretary.

The Secretary, in connection with the Ex. Com., was directed to furnish subjects for Essays, and members of the Board requested to select from them and report at the next meeting at the close of the year.

The following paper from a committee was then accepted:

State Board of Agriculture
Boston, May 11, 1853.

Whereas, the Rev. JOHN A. NASH, Professor of Theoretical and Practical Agriculture in Amherst College, and a member of this Board, is about to visit England and other countries of Europe, for the purpose of gaining information relating to the science and practice of Agriculture, this Board takes pleasure in testifying to the high personal character and the scientific attainments of Professor NASH, and to his zeal in the cause to which he has devoted himself; and cordially commend him to the kind regards of the scientific and practical agriculturists, and of all agricultural associations in the countries which he is about to visit.

THURSDAY MORNING.

His Excellency, the Gov., being engaged in his official duties, Col. WILDER was requested to resume the chair.

The proceedings of Wednesday were then read.

On motion of Mr. FRENCH, it was voted that a bushel of sound, merchantable corn, shall be considered by all the societies to consist of fifty-six lbs. of shelled corn weighed at any time before the 30th of November, and that 80 lbs. shall be considered a bushel on the cob when taken from the field.

A bushel of	rye	56 lbs.
"	barley	46 lbs.
"	buckwheat	45 lbs.
"	oats	30 lbs.
"	wheat	60 lbs.
"	potatoes	60 lbs.
"	carrots	55 lbs.
"	sugar beets	60 lbs.
"	mangel wurzel	60 lbs.
"	ruta baga	60 lbs.
"	parsnips	45 lbs.
"	English turnips	50 lbs.
"	white beans	60 lbs.
"	peas	60 lbs.
"	onions	50 lbs.

The Secretary was directed to notify the Agricultural Societies of this vote, and request them to conform to it as soon as their circumstances will permit.

Messrs. WILDER, PAGE, PROCTOR, HITCHCOCK,

SMITH, DODGE, FRENCH, BROWN, SPRAGUE and LAWTON were appointed a committee to confer with the Governor of the Commonwealth and consider and report whether any, and if so what aid may conveniently be afforded by the State to this Board to facilitate experiments in scientific cultivation of the soil by the use of the lands connected with the State Reform School at Westboro'.

Messrs. FRENCH, SPRAGUE and WILDER were appointed a committee to audit the accounts of the late acting Secretary.

Messrs. WILDER and BROWN were added to the Executive Committee.

At 2 o'clock the Board adjourned.

For the New England Farmer.

NEW AND UNTRIED SCHEMES.

"So far as possible, the established and endowed institutions for education, and all the usual means of improvement at command, should be made available to the advancement of the agricultural interest, instead of looking for new and untried schemes."—*Reviewer in N. E. Farmer of April* 30, 1853.

The above cautious remarks are made in the review of the monthly number of the *Farmer* for April, in the paragraph captioned "Farmers' Libraries.

In order to assume a position in this matter, and have a fair starting point from which to reckon our latitude and longitude, we should like to know what our incog friend means by "new and untried schemes." He seems to admit as a fact, that "our established and endowed institutions for education, and all the usual means at command, should be made available for the advancement of the agricultural interest," To this we respond a hearty amen! But when or where has this been done? It is now but a few years since the application of science to agriculture has received the least attention in our country. It is yet the opinion of too many, that ignorance in these matters is a befitting quality in the cultivator of the soil, although the mass, we hope, have risen far above so grovelling a view of things, and many are anxious to see a better order of things introduced; and to effect it, are willing, with the same nobleness of purpose as led Columbus to venture on unknown seas in search of a new world —to venture "*on new and untried schemes.*" Agricultural schools have been the subject of much consideration, and their effect on those who could be benefited by them would probably be of a salutary character. But the public mind does not yet (it will be, however, some time,) seem prepared for their endowment. Agricultural professorships, as a remedy, are being introduced into some of our colleges. The effect will, no doubt, be a good one. But at present it is a "*new and untried scheme,*" even in our "established and endowed institutions for education." We hope the scheme will prove so successful and its benefits so fully appreciated, that every college in the land will find such a professorship a necessary appendage, and that the cultivation of the soil will be taught *practically* as well as theoretically at all such institutions. And our *academies*, too, and "all our higher seminaries of learning," whatever name they bear, what a beautiful idea it would be if they would arise and elevate themselves into a new atmosphere and shine forth by richly developing the mysteries of seed time and harvest, and unfolding all the beautiful knowledge drawn from natural laws connected therewith. Yet most of these "usual means of improvement" would of necessity have to venture upon "*new and untried schemes.*"

We have often thought that science as connected with agriculture might be successfully taught, to a limited extent, in our common schools, which are accessible to every child in the country. We are now of the same opinion. If nothing more was done in these humble seminaries than by occasional *talkings* of the teacher to interest the mind of the scholar in natural objects by pointing out their uses, and defining their beauties and calling them by their right names, the curiosity would be awakened so that a research into these things, to continue through life—widening and deepening and presenting new attractions all the way through life—would by the result, and from so humble a beginning invaluable consequences would necessarily arise. But the thing has never, to our knowledge, been done so as to give a fair result of the experiment; consequently, it would be venturing upon a "*new and untried scheme,*" which many in the outset would pronounce visionary and false to attempt the innovation.

Almost half a century ago, a few individuals away back on the Berkshire hills, established a society for the promotion of agriculture and domestic manufactures. The first beginning in this affair was *very small.* Farmers shook their heads and thought no good would come out of the matter. Others thought the project visionary, and that if it did not end in smoke, its greatest result would be wind. It was a scheme *wholly* new and untried, and in order to get up the first exhibition, if we have been rightly informed, the few who managed the affair borrowed of their neighbors in order to increase the number of articles comprising a small exhibition. Still they persevered, and saw the dark clouds of discouragement pass away, and now the number of such institutions in the land are almost innumerable, while the benfits resulting from them defy calculation. Berkshire numbers two within her borders, each of them in flourishing condition, calling each year thousands from the hills and valleys to their annual fairs, and each one come in the strength of zeal and fulness of admiration which attends the progress of a desirable and favorite object.

When the experiment of sustaining agricultural societies was fully tested and their utility had become a fixed fact, another new and untried scheme presented itself to the consideration of the cultivators of the earth. Horticulture had thus far been under the fostering care of a few individuals.—Choice fruits, healthful vegetables in abundant supply, and rare and beautiful flowers, were restricted in their growth to the gardens of wealth and taste, while the thought that they were intended for the multitude had never entered into the heart of man. But the union of effort which had given agricultural associations success, and had given new impulse to agricultural progress, was seen to be good and lovely in its operations, and its aid was invoked in behalf of horticulture. The Massachusetts Horticultural Society is an imperishable monument of the success which such effort brings; and numerous similar, though humble institutions, spread all around us, are now

each year feasting the eye with new beauties and regaling the taste with still more delicious fruits.

One more new and untried scheme upon which the farmer has ventured, and we are done. This is patronizing and sustaining the agricultural press. Almost one-fourth of the nineteenth century had passed away when the first agricultural paper made its appearance in America; and it is not probable that one in a hundred of the farmers saw such a paper, or one in fifty knew of its existence, for years after its first issue. By the many it was looked upon as a regular humbug, fresh from the city. But it lived,—its circulation increased, it was read and re-read. The demand came for more, and now not less than a dozen similar papers, each of high character, are issuing in various sections of the country, besides a host of smaller fry, whose columns are in part devoted, professedly, to the same object of giving agricultural knowledge. We might go further, but we promised to stop, and therefore forbear, only hoping that agricultural lyceums and farmers' clubs, or whatever name they may bear, will be multiplied until their numbers become as plenty as the locusts of Egypt, and that every lyceum or club will have its library and cabinet, and every other appendage necessary or convenient for intellectual progress in the arts so essential to the well being of mankind at large.

Yours truly, W. B.

Elmwood, May 6, 1853.

For the New England Farmer.

OXEN AND HORSES.

BY M. M. FISKE.

Messrs. Editors:—Having read an article in your paper of Jan. 1st, which advocated the superiority of oxen over horses for farming purposes, and having some leisure time which could not be employed to better advantage, I have thought proper to offer the following remarks.

The ox is certainly a noble animal, his species being one of the greatest blessings ever conferred upon man; and what will be more acceptable to our Creator for the above than to care and provide for such animals as are committed to our stewardship, as we would wish to be cared for under the same circumstances. Indeed, I firmly and religiously believe that it is a law of Heaven, designed for their special protection, that the benefit to be derived from their possession will be in exact proportion to the kindness and mercy exercised towards them.

To the farmer whose land is very rocky and uneven, oxen are indispensable; but to those whose soil is measurably smooth and easy of cultivation, the horse is decidedly preferable, whether for the profit of his labor or the pleasure of driving.

To ascertain the correctness of the above, we must calculate the cost of keeping for each, per week, and which will answer the best and greatest variety of purposes of the farmer.

A statement was published a few years since, by the Hon. B. V. French, of Braintree, in which he made the actual cost of keeping his horses per head, per week, to be $1,50; this was probably when hay was lower than at present, but this fact will bear equally against the ox.

It is a common saying that a horse will eat as much, or more, than two cows, and that two horses will eat as much as three oxen, and it may be so, but my experience gives entirely a different result. A pair of oxen weighing 3000 lbs. are by no means uncommon, as many such cattle are kept in this vicinity, and I have no hesitation in saying that such a pair will eat 700 lbs. of hay per week, if they are kept at labor during the fair weather, allowing them all the stormy weather for rest. To support this assertion by evidence, I would adduce the fact of an experiment being made in this town by two different men, whose names will be given if required, purchasing each a yoke of oxen, to accommodate the people of their vicinity with the labor of themselves and oxen at $2,50 per day; they had work in such abundance that it was with difficulty they could keep their customers at peace with themselves and each other, as to whom they should first serve. Being obliged to purchase everything that their cattle eat, they could not get money enough to support them and their families, and were obliged to abandon the enterprise altogether.

Another case in point, is that of a friend who says he had not the least doubt of his making money by working out with his oxen at $2,00 per day, until he purchased 600 lbs. of hay at $1,00 per hundred, which was consumed by them alone in five and a half days.

A pair of horses weighing 2000 lbs. are of respectable size, and are as large as would be profitable for most farmers to keep. Now is it reasonable to suppose that it will cost as much to support 2000 lbs. of horse flesh, as 3000 lbs. of ox flesh? No sane man will say so, whose mind is free from prdjudice. But it will be argued that oxen can be kept cheap in winter when they are idle; to this I would answer, so can a horse under the same circumstances. But neither should be kept to look at, as there is no reason, to my knowledge, why they should not with proper care in feeding, or driving, &c., work every fair day, as well as their owner or driver.

I have known some men to be dreadfully disturbed if their horses or oxen worked over 8 hours, or even that, in a day, while they could see their wives and daughters work sixteen or eighteen with the most perfect indifference.

Two horses harnessed side by side on a four wheel cart will haul as much manure as a yoke of oxen; on any common plain they will be fully equal, if not superior for plowing, and if the weather should be extremely warm, as it often is in the spring, the advantage is nearly two to one in favor of the horses.

An ox team of one yoke cannot be divided; the horses can; one can go to the mill or to the store, or to visit a sick friend, while the other is plowing out the corn, &c.; two teams can be made of them to cart hay, rake, &c.

Since writing the above, I have conversed with a number of citizens of this town, who use horses exclusively, and others who use both oxen and horses, upon the comparative expense of their keeping and value of their labor. The statements of some of these I will give, not desiring to be understood that the men whose names I shall mention are wise above all others, but that they will be considered as good authority, wherever they are known.

Mr. Harrison Eames keeps a pair of horses weighing about 2000 lbs.; cost of keeping per week

as near as he can estimate is $3,00. These horses for a number of years have done all the work on his farm, (which is a good sized one,) in addition to a large amount of plowing, hauling manure, wood, &c., for his neighbors, being constantly employed either at home or abroad. These horses, when hitched to a dead pull, such as rocks, logs, &c., will draw equal to any oxen. Mr. Eames says he can plow two acres of common grass land in a day with his horses as quick as he could one and a quarter acres of the same with oxen.

Col. WM. HASTINGS has a pair of horses whose weight is 2200 lbs.; cost of keeping, as near as he can estimate, per week, $3,40. Keeps from one to three yokes of oxen—knows by experiment that a yoke of oxen of 3000 lbs. weight at labor, will consume 100 lbs. of good hay in 24 hours, and also that his horses will perform nearly or quite fifty per cent. more labor of almost any kind, than will the oxen.

Mr. BUCKLEY MOORES has a pair of horses whose weight is 2500 lbs.; cost of keeping, as near as he can estimate, per week, $3,40. The performance of these horses upon any kind of work he feels safe in fixing at 75 per cent. more than any oxen in the vicinity. If he kept oxen he would be obliged to keep one horse; kept four oxen formerly, and but one horse, but found the cost of keeping much too large to leave any margin of profit. But by disposing of his oxen and purchasing another horse, the face of affairs was entirely changed, the span of horses doing all the work of the four oxen, at about one-third of the expense of keeping, besides doing the single horse's work of going to mill, store, meeting, &c.

Mr. F. CHILD's span of horses weighs 2000 lbs.; cost of keeping for five weeks, ending Feb. 28, was $17,30, being per week, $3,46. The greatest accuracy of the cost of keeping was obtained in this case, as Mr. C. purchases the whole of his hay and grain, whereas those of whom I have before made mention, produce everything necessary for the purpose, from their farms.

A loss of about 10 per cent. is sustained by those who purchase their hay as they need for present use, over those who take it in from the field. These horses are principally employed on the severest kind of labor, in hauling stones from the ledge of Messrs. Franklin Cloyes and brothers, to their different places of destination, often carrying 4500 lbs., besides the wagon, to Natick, a distance of about eight miles from the ledge, over a somewhat hilly road. The proceeds of the above five weeks' work was something over $50,00, there being much bad weather and soft travelling. All of the above teams are in the finest working order.

Now if the above statements and calculations are correct, we have the following result, viz: that a pair of horses can be kept for about 37½ per cent. less than a pair of oxen, and will perform, on an average, at least, 37½ per cent. more labor.

It must be borne in mind that oxen cannot be kept at hard labor and high feed more than two years, before they will lose their appetite and strength, which can only be regained by a whole summer's good pasture and perfect freedom from labor. The cost of shoeing is nearly as much for oxen as for horses. No domestic animal is more beneficial to man, under certain circumstances, than the horse, and there are none which have suffered more from his cruelty. In all ages of the world, and in all stages of civilization and barbarity, he has been his esteemed favorite. To the shame of civilized men be it said, that the savage has ever been the kindest master. It is not uncommon to see some very professedly pious people, for the sake of five paltry dollars, dispose of a faithful old servant to some vagabond to be abused in the most shameful manner, and all this without the least compunction; such people may possess great piety, but it is not so great as their avarice. In times of danger and distress what more faithful and efficient friend? And it is then that we can in some measure appreciate the feelings of Shakespeare's Richard the Third, when his kingdom was considered to be of the lesser value.

Yours truly, M. M. FISKE.

Framingham, April 2, 1853.

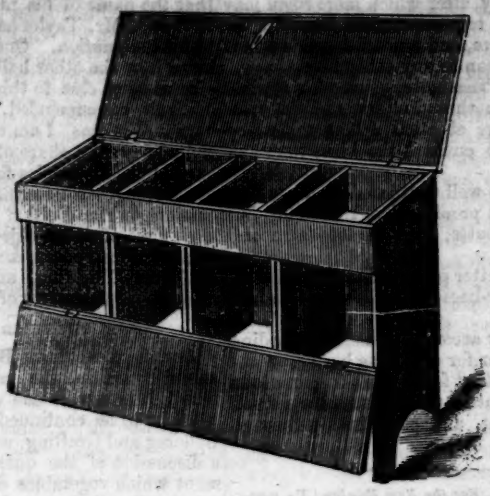
REMARKS.—Many thanks, friend FISKE, for the above excellent article. Your declaration in the outset, that you could not better employ your leisure than in giving expression to your thoughts on this subject, was correct. We have no doubt thousands will be influenced by these opinions. Let us have more of them on other topics.

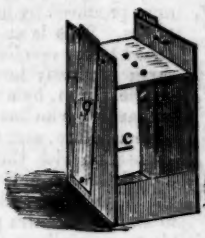
GRAFTING.

At a meeting of several gentlemen of the Horticultural Society, on the 29th of January, the subject discussed was "*The Cultivation of the Pear.*" The discussion is pretty fully reported by Mr HOVEY in his Magazine. Mr. WALKER said, "great errors were committed in grafting trees; some persons took off the whole top of a large tree, and then large quantities of suckers are thrown out below the graft; many of his friends had cut them off as fast as they appeared; the consequence was that the grafts failed, or the trees died. Thus, he said, it would always be; for if you continue to bleed trees every week they cannot live."

These remarks apply to the apple, as well as pear tree. We believe the practice of cutting off the entire top of an apple tree at once, a bad one. It leaves a large amount of vigorous roots with nothing to balance them; nothing to receive the great flow of sap which the roots are constantly sending up. The tree, then, in order to equalize its powers, throws out great numbers of suckers—these are cut off, and another set is started, and the struggle goes on between the tree and the man with the jack-knife, until the tree knocks under and dies. If any trees survive this operation, it must be attributed to the kindness and persistence of nature, and not to any discernment of the operator.

REMEDY FOR THE ONION WORM.—"A Farmer's Daughter," in the *Maine Farmer*, says the common poppy growing among the onions will prevent attacks of the worm. When the poppy plants become too numerous or strong, pull them up and leave the uprooted stalks on the bed.





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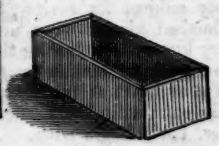

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PHELPS' BEE-HIVE.

We have had no experience with this hive, but give the description of the inventor, that those interested may judge for themselves. Address E. W. PHELPS, Westfield, Mass.

Figure 1 is a view of the back of the hive, with the lid or cover raised, and the rear door opened, showing the arrangement of the main boxes, and also the top boxes. Each of the large boxes is constructed with a pane of glass, 7 by 9, for the back side, by which an opportunity is afforded to learn the number and condition of the bees, with the amount of honey and of wax. Each of these boxes communicates with those on either side, as shown by the next figure.

Figure 2 represents one of the large boxes. The slide, *g*, closes the communication between the boxes, which consists of a narrow slot a few inches in length, as seen on the interior, on the right side of the box. This slide turns upon a screw pivot near the bottom of the box. A slot on this side corresponds with that on the box, when fixed in the proper position for opening the communication.

Figure 3 is one of the small boxes, which is to be placed on the top of the large or main box, and connects with it by means of the circular holes noticed in the second figure. The top of the small box is also covered with glass. When filled with honey, the large boxes contain about 30 lbs., and the small boxes from 8 to 10 lbs. each. The upper ones may be removed when filled, as also the large ones.

The patentee claims for it the following important advantages:

1. It is adapted to either large or small colonies, as the bees occupy from one to six boxes (or sections,) as their numbers may require, and thereby give them at all times as much or as little room as they may need at each and all seasons of the year.

2. It affords the best facilities for observing the operations of the bees, for ascertaining the amount of honey stored, and the strength and condition of the colony, without the least exposure to the bees.

3. The arrangement for removing the old brood combs, (so essential to keep a colony in health and vigor,) and for removing the surplus honey, are equalled by no other hive, as the bees may be made to leave either box before removing it from its place in the hive.

4. It is desidedly the best non-swarming hive ever invented, as colonies may be divided and multiplied without the trouble and uncertainty of swarming; or swarming may be prevented, by giving ample room, and taking the surplus honey as fast as gathered.

5. It is also the best swarming hive, as the

bees may be confined to a small amount of room during the fore part of the season, and thereby induced to swarm early, after which more room may be given them, so as to prevent their clustering on the outside of the hive, and a much larger amount of honey obtained than in any other hive.

6. It affords the bees better protection against the ravages of the moth and miller, and the apiarian better and more effectual means to destroy them after they have entered the hive, than any other.

7. Each section is well ventilated, and the bottom, when closed, is proof against the miller, but being attached by butts, may be let down and cleaned at pleasure.

8. The bees are better protected against the attacks of both robber-bees and millers in this hive than in any other.

9. It affords better accommodations for feeding either late swarms, or for obtaining honey, as the arrangement is such that for robbers to gain access to the feeding apparatus, they must enter a small passage at the spout, and pass directly through the main body of the hive.

For the New England Farmer.

THE MONTHLY FARMER FOR MAY,

With its forty-eight double-columned pages, filled with some seventy-five articles, on perhaps twice as many subjects, and with "pictures to match," is rather a lusty subject for review, to one who has not yet finished his planting, and who has lost his "literary hours," by having the evenings cut off from the night and tacked on to the skirts of the day. Yet as I do not like to give up the privilege of a little chat with the readers and writers of the *Farmer*, I will begin with,

THE FIRST TEN PAGES.

Editorial hints on Grafting, Soiling, Corn, and Asparagus, everybody has read; but some of us have put off the suggestions till next year. The next article is a nut for the man to crack who knows all about plowing,—how and when. Passing articles on Millet, cultivation, yield, &c.; Spring; Bone Wens; Special Manures, with table of results, &c., we come to an article on Agricultural Chemistry that is well calculated for a sort of "third man" between the combatants on this subject. No matter whether you laughed or scowled, read it again. The writer puts spice in his things. Then comes a recommendation of white birch and white pine for hedges to turn cattle. How would currant bushes answer? A description, with cuts, of Emery's Reaping and Mowing Machine; Honey Bees; Posts, best little end down; account, with engravings, of Guenon's mode of selecting cows by their "curls;" and More about Plowing, and our first decade is completed.

THE SECOND TEN PAGES,

Like the first, begin with editorial hints, in which the first principle of "Rawstone's Lancashire Farming" is, to drain off all *superfluous* water. I wish some "Thorough-draining" man would visit my place next August and point out a few specimens of this "superfluous water." Suggestions in Composting, not from England, nor from books, but from practice on a farm in Vermont; Choked Cattle, remedy and prevention; Cost of different kinds of Fences; Agricultural Papers; against Hilling Corn, &c.; and cautions against buying foul seed, bring us to a New Brunswicker, who complains that the name of his place is never seen in the *Farmer*. Mr. Taylor has given the right direction to his indignation. One-half of the world don't know how the other half lives; but such articles give us some clue to this knowledge. Cultivation of Fruit, recommended, but nothing said about bugs and worms. I am afraid the curculio will yet claim as great a share of our apples as it does of our plums. My apples for a year or two have been badly stung. Now comes another legislative discussion, on the division and fencing of farms, in the course of which objections are made to hedges, Guano, Wire Fences, &c. Another plan for Agricultural Education, and some observations on climate in other parts of the world, bring us to

THE THIRD TEN PAGES.

And here we have Birds of New England; a valuable article, the most pleasing sentence of which, however, is one near the bottom, in these words, "to be continued." Passing Remarks on Budding and Grafting, we have Manures Again,—a discussion of the question whether the nutriment which vegetables derive from the soil, may not, nearly all, be returned to the soil in the manure produced by feeding animals upon the vegetables. This is an important question. I am inclined to the opinion, that the cultivation of the earth gradually impoverishes the soil. Grafting on the Thorn, by a new correspondent, but an old orchardist, who has the independence to acknowledge a failure, and to publish it as a caution. In connection with the experience of Mr. Burt, (p. 204) I think Mr. Goodrich's article conclusive on the subject; certainly it is with me, for I happen to know that extra pains were taken with some of his thorn stalks. We will now jump over Live Fences; thank "R. B. H." for his account of Maryland Farming; just say that a "practitioner of medicine" recommends Sulphate of Zinc for one of the dairyman's afflictions, sore teats, and for other complaints; admire Farm Accounts, by which seventy-nine barrels of apples were picked, marketed, and the "lot" taken care of for $7,50, and will call the valuable Analyses of Clam and Oyster Shells, by the State Geologist of New York, the last article in this division.

THE FOURTH TEN PAGES.

A discussion by our law-making farmers, on Farm Buildings. Then an Artisan tells us how a wooden house may be plastered and made to look like granite. Of all architectural absurdities, this plastering and streaking wooden houses in imitation of stone is the most ridiculous. Observations on spring work, by F. Holbrook, whose articles are rather to be done about than talked-about.—In an article on "Shade Trees," the editor directs to "set in disorder, not in linear order." Are you sure of this being "good taste," Mr. Editor? I know Downing says so; but does that settle the question? "Follow nature." Ah! do not the honey bee and geometric spider follow nature? Does not the rainbow as it *arches* the heavens, or the thunderbolt as it *angles* across the dark cloud, follow nature? Would either of these become an object of greater admiration were it to abandon its geometric instinct, for the most commendable "disorder?" While a cow or a sheep might plant an orchard or a grove in utter confusion, may there

not be in man a principle or instinct that prompts him to the manifestation of order, proportion,—geometric figures, if you please, in those he plants? On riding past an orchard planted with mathematical precision, who does not experience sensations of pleasure, as the changing rows marshal themselves before his eyes, that disorder never excites. But enough of this. Passing on, we have more About Potatoes, in which several "Cures" are cured of all cure; the last legislative Agricultural meeting of the season; Shovel Making; Wealth of the United States; and Comments on Plaster.

LAST EIGHT PAGES

Commence with a cut and comments on Brush Seed Sower, followed by a remedy for the Bee Moth; then Model Farms, &c., are discussed. I understood the writer to say that the inquiry, In what manner can the State beneficially aid the farmer, lies at the foundation of all our action! O, no. That talk may do for Frenchmen, but not for Yankees. What are we doing *ourselves*, is the question for us to build upon and to answer. Native Gooseberry recommended; those in this section, though better than none, are not much esteemed. What shall I do? I'll tell you what, Mr. "C. W. A." Go to the city and work at a trade, till Saturday night—pay $3,25 to the landlady, and 40 cents to the washwoman, and you will soon learn better than to contrast wages *without* board and washing, with wages *with* board, washing and mending, and may pick up a few other facts worth remembering. Proceedings of Concord Farmer's Club, on the memorable 19th of April; A Shower of Mud; Paint for Brick Houses; Gardening; a Column of Replies to Correspondents; Ladies Department; Advertisements and Contents, complete the task for this month of

A READER.

Winchester, May, 1853.

AGRICULTURAL AXIOMS.

In no department is Bacon's celebrated maxim, "Knowledge is power," worth more than in agriculture. Hence, no farmer can be accounted skilful in his profession, who does not avail himself of the information to be derived from the experience of others, and who does not improve his knowledge of husbandry by the perusal of the ablest works which have been written on that subject. It is absurd to imagine, that the communication of knowledge which has promoted the advancement of every other art, should be of no use in agriculture. Endeavor to raise good grain, for it will always sell, even in years of plenty; whereas it is only in dear and scarce seasons that there is demand for grain of an inferior quality. Let your stock of cattle, horses, &c., be of the best bloods, and more remarkable for real utility than for beauty or fashion. No farmer ought to undertake to cultivate more land than he can manage to advantage. It is better to till twenty acres well, than one hundred in a slovenly manner. A man's owning a large farm is no excuse for imperfect tillage. What he cannot improve, he need not undertake to cultivate. A large farm, without skill, capital, and industry, is a plague to its owner. It is like what somebody said of self-righteousness, the more you have of it, the worse you are off.

For the New England Farmer.

BIRDS OF NEW ENGLAND.

THEIR PAST AND PRESENT HISTORY....No. 4.

BY S. P. FOWLER.

It is our intention, in this article and others which may follow, to present to the notice of the *Farmer* and *Horticulturist*, some of the habits of our birds most interesting to them. But in order to present to the reader something of the present history of the feathered tribes, we shall enumerate all the species in their orders to be found in the Union, together with those that are known to have been discovered in Massachusetts.

The first order includes the rapacious and nocturnal birds of prey. These take up their abode in forests and solitary places for the most part, and refuse to receive the protection afforded by man and flee from his presence. They subsist by war and rapine waged upon other birds and small quadrupeds.

The second order are the omnivorous birds, so called because they are not discriminating in their food, feeding upon insects, worms and carrion.

In the third order we find the insectivorous birds, so called because they principally feed on insects, only occasionally feeding upon fruits and berries.

The fourth order embraces the graminivorous birds, so named on account of their habit of feeding principally upon grain, and seeds, insects only constituting a part of their food.

The fifth order is the Zygodactyli, derived from two Greek words to join, and a finger, and used by ornithologists to designate those birds whose feet are furnished with two toes before, and two behind, as the Parrots and Woodpeckers. These birds, particularly the Parrots, subsist principally upon nuts and hard seeds, while the Woodpeckers add to their bill of fare caterpillars, worms, the larva of insects, and occasionally fruits.

Order sixth are the slender billed birds, or the Ten-u-i-rosters, from the latin *tenuis* and *rostrum*, and applied to birds with a long and slender bill, as the Humming Bird. Nearly all this order feed upon insects.

The seventh order contains only the Kingfisher, an odd, grotesque looking fellow, who gets an honest living by fishing. His note is as singular as his appearance, and resembles the springing of a watchman's rattle. It is the only species as yet discovered in North America. It is known to ornithologists as the Belted Kingfisher.

In the eighth order we find the Swallow tribe. These birds feed exclusively on insects.

The ninth order contains the Pigeon tribe. The food of these birds consists of grain and seeds, rarely of insects.

In the tenth order are included the gallinaceous birds. These subsist on grain and seeds, not unfrequently adding buds of trees, berries, and larger insects, to their fare.

The large number of water birds may be classed as Wading birds, and Lobe-footed and Web-footed birds. They feed upon fish, reptiles, marine insects, seeds, vegetables and shell-fish. Their voice is unmusical, they are shy and retiring in their habits, and avoid the haunts of men. It is in New England that we find the greatest number of birds, both useful and interesting to the farmer and horticulturist. Massachusetts, particularly in the

warm season of the year, abounds with beautiful birds. The fondness of many birds for our glorious old Commonwealth, doubtless arises from its variegated surface, diversified as it is by hills and dales, streams of water, beautiful ponds and lakes, saline marshes and grassy meadows, open bays and sandy shores, its forests and sylvan groves, extensive orchards, cultivated fields and beautiful gardens. Most birds, except the rapacious ones, avoid deserts and solitudes, and are seldom found in those parts of our country covered with dense forests. It has been remarked by all ornithologists of observation, that birds are soon attracted to the habitations of men, and when a clearing is made in the forest, or a fur post is opened on the shores of the rivers, or the lakes in the West, the birds [excepting the carnivorous ones] always increase about them. This arises from their desire to flee from birds and beasts of prey, always to be found in the woods, and from there being usually a greater supply of food, to be found in the cultivated fields and gardens, and to seek shelter and protection from men. It is a fact which every observing man must have noticed who cultivates the soil, that insects and weeds constantly follow his footsteps. And that the higher the state of his cultivation, the more various his productions, and the larger the number of trees, shrubs or plants he has under culture, the greater in numbers and varieties will these pests be found to exist.

In view of these facts, let us look around for means to assist us in extirpating or keeping in check our noxious insects. And where can we find better allies to help us in performing this great work than insectivorous birds? And what cultivator, when he considers all the benefits, and the pleasures to be derived from the presence of these beautiful creatures, would wish to deprive them of the occasional gratification of eating a few of our fruits that we can so well spare. The shooting of our small birds by thoughtless boys, we have for many years considered a great evil. We always admired the limitation given to bird shooters by our old and respected friend, many years since principal of the Bradford Academy in the County of Essex. When requested by his scholars to give them permission to go a gunning "Election Day", he always cheerfully granted their request, but with this wise and safe proviso, to-wit:—They might go and shoot all the *Eagles* they could find, but if they killed any other kind of birds he would *flog them*. Verily, Master G. should be honored as much for his wisdom and humanity, as he is for his attainments in mathematics. But perhaps some will say, give us the evidence that birds are useful in the destruction of insects, and they shall receive our protection. Well my friends, that is the very thing we intend to do in our next communication.

Danversport, Feb. 1, 1853. S. P. F.

STIR THE SOIL THOROUGHLY.—Plowing and harrowing and stirring the soil, is the order of the day for the most of this month. This stirring of the soil, old Jethro Tull used to teach us, was the first and the last essential of "goode husbandrie." Indeed, he was of opinion that better crops could be raised by very finely pulverizing the soil and putting on no manure, than could be raised by manuring highly and pulverizing the soil but little. By the improved implements of the present day, we can pulverize very thoroughly at comparatively much less labor and cost than they could in Tull's day. Why not adopt his theory of thorough pulverization and the modern theory of high manuring. Combine them together. At any rate, if you plow at all, plow well and make the soil as mellow as possible.—*Maine Farmer.*

THE BLACK KNOT ON THE PLUM.

BY WM. MERVINE, UTICA.

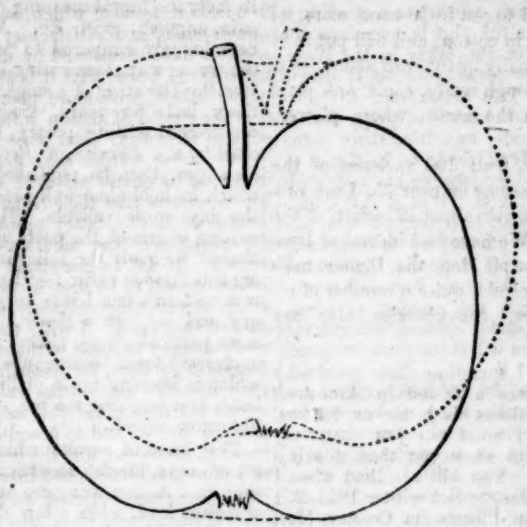
Many causes have been assigned for the disease in question, none of which, so far as my information extends, are satisfactory. Some have supposed it to be occasioned by diseased sap, or vegetable ulcer; some, that it is the work of the curculio; others, with more plausibility, assert that it is the result of poison infused by the minute sting of an insect. But none of those entertaining the latter opinion have described the kind of insect, or its characteristics; and it is therefore fair to assume that their belief rests upon conjecture alone. The latter opinion, however, with the exception of the minuteness of the sting, is correct. It will be permitted me to say, that I believe myself to be first in determining the fact, and in ascertaining, certainly, the habits and character of the insect. I will, therefore, proceed as briefly as may be, and without regard to possible charges of egotism, for asserting in opposition to many scientific men on the subject, what I know beyond a doubt to be the origin of the excrescence, or tumor, and to describe the insect which causes it, its habits, and the best method of guarding against its attacks and increase.

The insect here referred to belongs, I believe, to the Hymenoptera class, and is about an inch in length; color, pale yellow; has four wings, and hind legs resembling those of the grasshopper, which seem designed for similar use; and, although furnished with wings, it uses them only, so far as I have discovered, for calling its mates. This it effects by shrill notes through the medium of vibrations, created by a rapid motion of them, and which affords the means of tracing it. The abdomen of the female is much larger than that of the male, in the extremity of which is concealed a sting of about a quarter of an inch in length, with which it pierces any shrub or limb selected as a receptacle for its eggs—often numbering a dozen or more, which are deposited with some acid poison in separate cells, longitudinally. From these eggs the larvæ are hatched—changed to the pupæ, or chrysalis state, and emerge during the ensuing June.

The excrescence does not appear until after the escape of the insects, the swelling of which is caused by the circulation of the sap being arrested in its natural course by the poison infused, which flows round the punctured parts, extravasates, and gradually forms the tumor. On dissecting one of these tumors, a grub may be sometimes found, but it does not cause the excrescence. Any one may satisfy himself of the truth of the foregoing remarks by observing the appearance of the insect during the months of August and September, especially the latter, that being the season of coition, when it may be found making its deposits; these, on being completed, are varnished over with a water-proof substance, presenting a

dark, glazed appearance, by which it may be known, and on carefully splitting a stung limb in the direction of the perforations early in June, the insect may be found in the larvæ state.

I have carried on for two years past a war against this insect, and never suffer one to escape when it can be traced; which, together with a judicious application of the knife in cutting off, and out, all the affected parts so soon as they appear and burning them, I manage to preserve and keep my trees clear of the unsightly tumors. If all those who are interested in the growth and preservation of those trees would adopt the course pursued by me, this destructive insect might, in time, be exterminated, or its effects, at least, very much lessened. Indeed, unless something be done to arrest its progress, many years, in my opinion, will not elapse ere the cultivation of the Plum and Cherry will have to be abandoned.—*Horticulturist.*



MONAMET SWEETING—GOLDEN SWEETING.

We believe the sweet apple may be profitably produced as food for swine and cattle; and there is this advantage over hoed and sowed crops, that when your trees are once well in bearing, little more is to be done, to give you a bountiful return for many years, than to keep the soil light and rich.

For culinary purposes they are scarcely surpassed by any food that comes on the table. They may be cooked in various ways, are cheap, wholesome, and not so perishable but they may be kept in good condition through several months.

Monamet Sweeting.—(*Dotted Outline.*)—Large medial; flattish; yellow ground, mostly bright, unbroken red, russet around the stem and on the base; stem medial, deep cavity; calyx large, in narrow basin; flesh whitish, tender, rich, and very sweet. 20th Aug. to 10th Sept. Origin, Plymouth, Mass.

Golden Sweet—Orange Sweet.—Large medial; round; pale yellow; stem an inch, rather slender, in a narrow, deep cavity; calyx closed, in medial cavity; flesh tender, of very sweet, rich and excellent flavor. Latter part of Aug. and Sept. A good grower and great bearer. Origin, Conn. There has long been known in New England another Orange Sweet, larger, roundish conical, yellow, ripens same time; excellent, but poor bearer.

EXTRACTS AND REPLIES.

From D. H., 2d, *Hollis, Me.*—"Thanks to your correspondents from Newton Centre, for information upon hedges, and from Pelham for the same, on hedges and forest trees. These remarks have suggested another species of forest trees which I think would do well for hedges; it is what we commonly call pitch pine. It is one of the most hardy trees, grows well in barren soils, needs no protection or cultivation, other than planting or setting, and does not sprout. I think it may prove one of the most valuable trees for hedges.

Can you, or some of your correspondents, tell me what will kill lice on house roses; several remedies have been recommended in your paper, but they fail."

We know of nothing better to destroy the insect you speak of than *whale oil* soap; syringe the plants freely with it, or place it in a broad pan and bend the branches of the bush over into it.

MISSISSIPPI FARMERS.—The following extracts of a letter from a friend and correspondent, at Edwards, Miss., will give some idea of the difference in magnitude of their operations, and ours in New England, as well as in the kind of crop cultivated. The letter is dated the 13th of April. The writer says, I am now doing what is very unusual on this place, plow and plant as I go. Generally I am a long way ahead in plowing, but it has been too wet to plow until April, and then it is time to plant cotton. I have to-night 90 acres in corn, and it is up—I intend to put in 50 acres more. I have about 145 acres in cotton, and will put in 80 to 90 more. We usually plant corn about 1st of March; this year, though ready, could not plant until 25th, and then the earth, where plowed, was too wet.

This year I hope to fruit 100 varieties of the pear. I have seen blossoms on over 75. I can produce of this years' growth, about 12 inches, of the "Horse Chesnut." We have had blooms of Hyacinth, Tree Peony, Purple Magnolia, Drummond's Flox, Spirea, Iris, Weigela, quite a number of roses, and other flowers. Strawberries, also, are about ripening.

BEES AND HONEY.—I sometime since received a pomological letter from a friend in Aroostook County, Maine. He closes his letter as follows, viz: "Before I close I must tell you about my honey bees, in order to show you that this is a great honey country. You will recollect when I was at your store in Bangor last winter, 1851-2, I had just returned from Piscataqua County, Me., where I had purchased 28 swarms of bees, 22 in the common box hive, and 6 in my improved hive. I have kept them all on my place [in Amity, Aroostook County,] and have had fifty-one young swarms, and have put them all in my improved hives, and they are now worth ten dollars each, (the cost of the hives being $2 each only) and I have drawn off *one thousand pounds of very pure honey in boxes, and all* without feeding the bees, which shows that we have a very fertile country, in flowers at least."

This is certainly succeeding admirably. He writes also of very good success in his nursery business.

Respectfully, HENRY LITTLE.

Bangor, April 25, 1853.

APPLES FOR MILCH COWS.

Five minutes ago a gentleman, who deals in facts and figures, as well as fine cattle, informed us that he fed out last winter more than two hundred barrels of sweet apples to his milch cows, and that the increased quantity and richness in quality of the milk paid him better than any other use to which he could have applied them. He states that he is raising trees annually, for the purpose of raising apples for stock.

Another important statement of his, is, that since he has fed apples to his cows, there has not been a case of milk fever among them.

Boy's Department.

FOLLY OR ANGER.

If a provocation has been offered you, before you fly into a passion remember the old proverb, "If thou art vexed, thou wilt have two troubles." A wise man once observed, "If I am angry, I punish myself for the faults of another;" and there is much good sense in the remark. I doubt whether even the most irritable man really *enjoys* a fit of anger. It is at best a painful passion. In fact, the literal meaning of the word anger, is pain, anguish, grief, &c. An irritable man has been happily compared to "a hedgehog rolled up the wrong way, tormenting himself with his prickles." The sting of a single fit of passion sometimes lasts for years. Soon after Lord Byron commenced writing poetry, he was sharply criticised by the *Edinburgh Review*, which so excited his anger, that he published a bitter satire, in which he held almost all the prominent writers of the day up to ridicule. Many years after, in writing to one of the poets whom he had unjustly abused, he made the following confession respecting this famous satire:—"I can only say that it was written when I was very young and very angry, and *has been a thorn in my side ever since*, more particularly as almost all the persons animadverted upon became subsequently my friends; which is heaping coals of fire upon an enemy's head, and forgiving me too readily to permit me to forgive myself."

The dreadful results which often ensue from fits of anger, furnish another reason why we should shun it. A man was once at work over a kettle of melted lead, when a few drops of water accidentally fell into it, and caused an explosion which sent the burning metal all over his face and breast. A single angry word, falling into an inflamed heart, will sometimes occasion an explosion even more terrible than this. Thus it is that anger and murder are often so nearly allied. Where there are no angry words, there are seldom any angry blows; but with the passionate man it is a "word and a blow." It is therefore well to avoid associating, as far as possible, with those who are given to sudden fits of passion. Solomon says, "Make no friendship with an angry man; and with a furious man thou shalt not go." Prov. 22: 24.—*Boy's Own Guide.*

STRIKE THE KNOT.—When we were boys, little fellows, our father began to teach us to work, and we were anxious to perform the allotted tasks. We were splitting wood. A rough, obstinate knot, tried all the skill and strength of a weak arm, and we were about to relinquish the task, when father came along. He saw the piece of wood had been chipped down and the knot hacked around, and took the axe, saying, "Always strike the knot." The words have always remained safe in my memory. They are precious words, brethren. Never try to shun a difficulty, but look it right in the face; catch its eye, and you can subdue it as a man can a lion. It will cower before you, and sneak away and hide itself. If you dread difficulties, difficulties will grow upon you till they bury you in obscurity.—*Cal. Ch. Adv.*

Advertising Department.

☞ A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square of 15 lines, one insertion.....$1,00
For each subsequent insertion.....50

☞ The above rates will be charged for all advertisements, whether longer or shorter.

AGRICULTURAL WAREHOUSE AND SEED STORE,

QUINCY HALL, OVER THE MARKET, BOSTON.

THE Proprietors having recently enlarged their Warehouse, and increased their works at Worcester, would respectfully invite the attention of Planters and Dealers in AGRICULTURAL & HORTICULTURAL IMPLEMENTS, GARDEN and FIELD SEEDS, &c., to their stock, comprising the largest and best assortment to be found in the United States which are offered at low prices.

Of PLOUGHS—we have the greatest variety of kinds and sizes.

Improved Sod Ploughs, for flat furrows—improved Scotch Ploughs for lapped furrows—improved Stubble Ploughs, which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth.

Self-sharpening, Hill Side, Sub-soil, Double Mould, Corn Cotton and Rice Ploughs.

Cylinder Hay Cutters, Smith's Patent Lever Gate, and others. Patent Corn Shellers, with and without Separators Seed Sowers, of various sizes and prices. Batchelder's patent Corn Planter, improved. Fanning Mills of various sizes Horse Powers, Threshing Machines, thermometer Churns Robbins' patent Centrifugal Churn, Cylinder Churn, Dash Churn, Corn Planters, together with almost every article wanted on the Plantation, Farm or Garden.

Illustrated Catalogues sent gratis on application, post paid

RUGGLES, NOURSE, MASON & CO.

Boston and Worcester, Mass., Jan. 1, 1853 tf

LANGSTROTH'S Movable Comb Hive,

(Patented Oct. 5th, 1852.)

EACH comb is built on a movable frame, and in five minutes they may all be taken out, without cutting them or enraging the bees. Weak stocks may be helped to honey and brood from stronger ones; queenless colonies supplied; the worms caught; and new colonies formed in less time than is usually required to hive a natural swarm. That the safe and easy control of the combs, makes a complete revolution in bee-keeping the subscriber prefers to *prove* rather than assert. At his Apiary, combs, honey and bees will be taken from the hives, the queen exhibited, and new colonies formed. By the close of May his work (350 pages) on the Honey-Bee will be published. It contains many new and highly important discoveries, and gives full directions for managing bees, in the author's hive, or any other. Cost of hives from one to five dollars; farm rights five dollars. For one dollar, postage paid, the book will be sent free by mail. On receipt of eleven dollars, a beautiful hive showing all the combs, (with glass on four sides,) will be sent with book and right, freight paid, to any Railroad station in New England; a right, book and hive for two colonies, with glass on each side, for $13; a thoroughly made hive for two colonies, glass on the bank only, with book and right, for $11. Address,

L. L. LANGSTROTH, Greenfield, Mass.

May 14, 1853. 3w*3

Super-Phosphate of Lime,

IN bags and barrels, made by C. B. DeBURG, a warranted pure and genuine article, with full directions for use. For sale by GEO. DAVENPORT, 5 Commercial, corner of Chatham St., Boston, agent for the manufacturer.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

March 26, 1853. tf*

Wanted,

An Ayrshire Bull, (full blood) from 1 to 2 years old. Apply immediately at this office.

May 21, 1853. tf*

Devonshire Stock.

For sale, a pure blood North Devon Bull. Also, two Spring Bull Calves, all as highly as can be found in this country. Inquire at this office, postage paid.

April 23, 1853. 6w2*

Auction Sale of 4000 Acres of Land.

ON TUESDAY, the 12th day of JULY next, the subscriber will offer for sale at public auction, several choice and valuable farms in the vicinity of Lockport, in the county of Niagara, and State of New York; among them some of the best improved and most highly cultivated farms in this region of country. Also,

2000 *Acres of Choice Timbered Land,*

lying about eight miles east of Lockport, and five miles from the Erie canal and the Rochester, Lockport and Niagara Falls Railroad. The timber is principally Beech, Maple, Bass, Ash, Hickory and Oak. In the midst of this tract has been erected

A First Class Steam Saw Mill,

with a variety of valuable machinery, capable of manufacturing 20,000 feet of lumber every 24 hours, all in fine condition and active operation. The mill and the improvements connected therewith, have been erected within the past two years at a cash cost of over $20,000. The mill will also be offered for sale.

This tract is surrounded by a highly improved farming country, is watered by various streams which meander through it, and is well situated for subdivision. The soil is of the first quality. These lands have never before been offered for sale. No higher commendation of the property offered is needed, than to say it lies in the midst of the most fertile and flourishing portion of Western N. York. The proximity of the railroad,

The Local Demand for Cord Wood

and other lumber, render the timber upon this tract of very considerable value. This land will be sold in lots of 50 acres and upwards, as purchasers may desire. The quantity, condition, quality and value of the property offered, constitute inducements to purchase, rarely presented to the public, whether capitalists or agriculturists.

The titles are beyond question, and the sales will be absolute.

A liberal credit will be given to those desiring it, for a principal part of the purchase money. The whole quantity of land that will be offered for sale will be over 4000 acres. An examination of these lands is invited before the day of sale. Lists and descriptions will be furnished to those desiring the same.

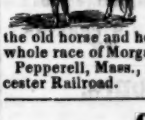
☞ The sale will commence at 1 o'clock P. M., upon the 2000 acre tract, and will continue until all the lands shall be sold.

A. WOLCOTT.

Lockport, May 28, 1853. 7w*

☞ The subscriber begs leave to refer the public to—Hon. Nathan Dayton, Hon. J. L. Woods, Hon. Hiram Gardner, Lyman A. Spalding, Esq., Lockport; Hon. Levi A. Ward, Rochester; Gen. R. Harmon, Wheatland, Monroe county; L. C. Fitch, Esq., West Bloomfield, Ontario county; A. A. Boyce, Esq, Utica.

Morgan Stock Horse for Sale.



For sale by the subscriber, a Morgan Colt, 4 years old last May, weight 1125 lbs., the best model of his Sire (the Green Mountain Morgan owned by Hale) that can be found in New England; his color and action, his temper, and gait, are like the old horse and he is reputed to be the best roadster of the whole race of Morgans. C. W. BELLOWS.

Pepperell, Mass., March 12, 1853. On Nashua and Worcester Railroad. *tf March 12.

Garden Seeds.

WE respectfully solicit the attention of purchasers of GARDEN SEEDS to our extensive stock, which we offer for sale. We have all the sorts of Vegetable Seeds that have proved worthy of cultivation; also, Grain, Grass and Flower Seeds. All the varieties are raised and selected expressly for our trade, and we do with confidence recommend them to all who desire to procure seeds that will prove true to their names.

☞ Catalogues gratis, on application.

RUGGLES, NOURSE, MASON & CO.,

Jan. 1. Over Quincy Market, Boston.

CONTENTS OF THIS NUMBER.

Calendar for June.....Page 249
Passing Matters.....250
Cob Meal—Sketches of Travel.....251
Plowman's Song—State Farm at Westborough.....253
Old Apple Trees.....254
Rules for the Application of Guano.....255
Duration of Posts—Feeding Teams.....256
Patrons—Patronage, &c.....258
Experimental Farming—Rural Pleasures.....259
Witch Grass—Cure and Preventive of the Potato Rot.....260
The Farmer's Cabinet.....261
The Season—Insects—Plum-Tree Warts.....262
Monthly Farmer for April.....263
Inquiries and Censures.....265
Grecian Farmers.....266
Soil—Tempering the Soil.....267
Manures—The Currant Borer.....268
Transactions of the Franklin County Society.....269
Ants and Aphides.....269
Farmer Pennywise and Farmer Poundwise.....271
Farming Implements and Machines.....271
The State Farm—Interesting to Farmers.....272
Dissolving Bones—New Seedling Grape—Shell Lime.....274
Spare the Sweet Songsters—Valuable Extracts.....276
Analyses—Plowing—Watering—Plowing or Ploughing.....278
Theories and Facts—Do they Agree?.....279
Fruit Trees.....280
Early Radishes and Turnips—Yarrow, or Wild Camomile.281
The Sod and Subsoil Plow.....282
Comparison between Ox and Horse Labor for the Farm.....282
Wash from the Sink—Tired of Farming.....283
Cows and Oxen in Portugal.....284
State Board of Agriculture.....284
New and Untried Schemes.....286
Oxen and Horses.....287
Grafting.....288
The Monthly Farmer for May.....290
Agricultural Axioms—Birds of New England.....291
The Black Knot on the Plum.....292
Extracts and Replies.....293
Apples for Milch Cows.....294
Boy's Department.....294

ILLUSTRATIONS.

Primary School House in Exeter, N. H.....257
Spanish Merino Ewes.....273
Phelps' Bee-Hive.....289
Monamet Sweeting and Golden Sweeting Apples.....293

Clarke's Excelsior Churn.

MR. EDITOR:—I append a literal copy of recommendations which I am in the possession of,—a fair specimen of what accompanies the introduction of this churn. I am rapidly gaining the favor and confidence of stranger dairymen solely by testing the churn wherever I can get a chance to do so. You will soon believe me *without an affidavit*—just so with others. GEO. B. CLARKE.

Leonardsville, June 1, 1853.

MR. GEO. B. CLARKE:—The trial of your Patent Excelsior Churn at my house, is perfectly satisfactory, and has fully answered my expectations, as it has performed what you have promised of it, in your advertisements and circulars.

Yours, ever, E. S. PERKINS.

Cazenovia, N. Y., May 3, 1853.

I cheerfully concur in the above, having been present at the testing of the Excelsior Churn at my son's house, as above stated by him. STILLMAN PERKINS.

This is to show that I have purchased C'arke's Excelsior Churn, and paid him $10 for it, he having churned about thirty pounds of butter in it at my house, where its operation has given me entire satisfaction.

Yours, &c., E. S. PERKINS.

Cazenovia, N. Y., May 4, 1853. 1w

Talacre Scythe Stones.

500 Dozen Talacre Burr Scythe Stones for sale, to arrive in a few days from ship GEN. TAYLOR, from Liverpool. Parties wishing to supply themselves for the coming season, should forward their orders to the subscriber as early as possible, to save delay. Boxes contain 6 and 8 dozen each.

T. B. BROWNE, No. 7 Doane St., Boston.

May 21, 1853. 2w

Bound Volumes.

BACK VOLUMES of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.

NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLDS and JOEL NOURSE, at Quincy Hall, South Market St., Boston

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☞ Terms, $1,00 per annum in advance.

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NEW ENGLAND FARMER, (WEEKLY,)

An Independent Agricultural Family Newspaper.

The News and Miscellaneous departments under the charge of WILLIAM SIMONDS, will include a full and careful report of the news of the Markets, and the news of the week, such as Domestic, Foreign and Marine Intelligence, Congressional and Legislative proceedings, Temperance and Religious Intelligence, and a general variety of Literary and Miscellaneous matter, adapted to family reading, comprising more useful and valuable reading matter than any other Agricultural Newspaper published in New England. Everything of a hurtful or even doubtful tendency will be carefully excluded from its columns.

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The monthly contains nearly the same matter as the Agricultural department of the weekly.

☞ Postmasters and others, who will forward four new subscribers on the above named terms, for either publication, shall receive a fifth copy gratis for one year.

☞ All orders and letters should be addressed, *post-paid*,

RAYNOLDS & NOURSE,

QUINCY HALL, SOUTH MARKET STREET, BOSTON.

☞ POSTAGE.—The postage on the New England Farmer monthly, is 1½ cents per quarter, or 6 cents per year, to any part of the United States, to be paid in advance at the office where the same is received.

Farm in Westboro', Mass.,

For sale or exchange, for Boston property, situated on the old Grafton road, within ¼ mile of the Railroad Depot, containing 27 acres of as good land as any other 27 acres laying in one body, in the town; it is elevated about 75 feet above the railroad, and overlooks the town, and is within 7 minutes walk of three churches and the town house, which for healthy location is unsurpassed. The buildings consist of a modern house, built by Boston mechanics in 1851, and is 32 by 22 feet, with a kitchen attached, 16 by 23 feet, two stories high, with a cellar under the whole. Wood-house, 16 by 30 feet; work-shop 16 by 12 feet; carriage and hen house, 16 by 21 feet; poultry yard, 30 by 53 feet, enclosed by slat fence 6 feet high; barn, 60 by 36 feet, with cellar under the same, as divided as to give a vegetable cellar containing about 2000 bushels; cistern and well water is brought into the house, and all the wash of the kitchen and privy is conducted by a drain to the barn cellar; likewise a farm house 24 feet square, 1½ stories high, cellar under the same; there are three good wells of water and one good brick and cement cistern on the premises. There are now on the farm 142 large apple trees, mostly grafted, also 220 young thriving apple trees, mostly Baldwins, from 4 to 6 years from the bud, some of them have borne fruit; likewise 34 peach trees of early choice variety, 10 pear trees, &c. There has been taken from the farm the past year, 30 tons of hay, 375 bushels of corn in the ear, 700 bushels of carrots, beets and S. turnips, 80 barrels grafted fruit, besides vegetables used in the family. For further information, apply at this office, of Messrs. SIMON BROWN or WILLIAM SIMONDS; at Westboro', of Messrs. FAYER WETHER & GRIGGS.

Feb. 5. 1853. tf

Ayrshire Calf.

For sale, a fine Ayrshire *Bull Calf*, (warranted pure) about 4 weeks old.

Apply at this office.

May 28. tf